

**HURRICANE MITCH:  
MANAGEMENT ASSESSMENT  
OF HUMANITARIAN ASSISTANCE  
ACTIVITIES IN HONDURAS  
AND NICARAGUA**

**BUREAU FOR HUMANITARIAN RESPONSE  
OFFICE OF PROGRAM, POLICY, AND MANAGEMENT**

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## FOREWORD

In 1998 an estimated 418 million people were affected by crises that required humanitarian assistance in response. Natural disasters accounted for almost three-quarters of these crises. Sixty-five declared natural disasters occurred in 1998 in contrast to 27 the previous year. El Niño and the Southern Oscillation (ENSO) affected nearly every development sector, causing social and economic disruptions that will impact development efforts for years to come in both Honduras and Nicaragua.

USAID played a leading role in relief and reconstruction in Central America. The U.S. response in terms of financial and other resources was unprecedented in the history of the region. The Bureau for Humanitarian Response led USAID's relief and emergency assistance activities in which three line offices provided technical and programming support in the initial aftermath of the disaster.

The Office of Program, Policy, and Management in the Bureau for Humanitarian Response undertook this assessment of our activities to ensure that we document the impact of our efforts in the field, that we learn from the experience, and, in so doing, that we strengthen our capacity for disaster response.

We hope that you find the document useful. We encourage you to send us your comments on it.



Lowell E. Lynch, Director  
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## ACRONYMS

ADRA	Adventist Development and Relief Agency
AG	Aldea Global, NGO in Honduras
AMHON	Honduran Municipalities Association
BHR	Bureau of Human Resources
CARE	Cooperative Assistance Relief Everywhere
CHAT	Large housing shelter in Honduras
CHF	Cooperative Housing Foundation
CINC	Commander in Chief
CNE	National Emergency Committee, Nicaragua
COC	Command and Operations Center, Honduras
CONE	National Emergency Commission, Honduras
COPECO	Permanent Commission for Contingencies, Honduras
CPI	Corruption Perceptions Index
CRS	Catholic Relief Services (NGO)
CS	Cooperating Sponsor
CSB	Corn soy blend
DART	Disaster Assistance Response Team
DAI	Development Alternatives, Inc.
DoD	Department of Defense
DoS	Department of State
ENSO	El Niño Southern Oscillation
FAHUM	Humanitarian United Alliances
FAO	Food and Agricultural Organization of the U.N.
FEMA	Federal Emergency Management Agency
FHIA	Honduran Agricultural Research
FHIS	Honduran Social Investment Fund
FFP	Food for Peace
FFW	Food for Work
FSN	Foreign Service National
GDP	Gross Domestic Product
GOH	Government of Honduras
GON	Government of Nicaragua
HDI	Human Development Index
HDR	Humanitarian Dietary Ration
IAA	Inter-agency agreement
ICRC	International Committee of the Red Cross
IDB	Inter-American Development Bank
IFRC	International Federation of the Red Cross
IO	International organization
IOM	International Office for Migration
IRG	International Resources Group, Inc.
ITSH	Internal transport, shipping and handling
LAC	Latin America and Caribbean region
LOP	Life of Project
MCH	Maternal/Child Health

MT	Metric tons
NIMA	National Imagery and Mapping Agency
NOAA	National Oceanic and Atmospheric Administration
NGO	Non-governmental organization
OFDA	Office of Foreign Disaster Assistance
OTI	Office of Transition Initiatives
PAHO	Pan American Health Organization
PCI	Project Concern International (NGO)
PPM	Program, Policy and Management Office
PVO	Private voluntary organization
PWC	Price Waterhouse Coopers
SANAA	Water and Sewerage Authority, Honduras
SAR	Search and Rescue
SOUTHCOM	U.S. Military Southern Command
SETCO	Secretary of Technical Cooperation, Honduras
STC	Save the Children (NGO)
TAP	Transitional Activity Proposal
TDY	Temporary Duty Travel
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government
USGS	U.S. Geological Service
WFP	World Food Program

## ***EXECUTIVE SUMMARY***

Hurricane Mitch was the worst natural disaster in the recorded history of Central America. What began as sustained heavy rainfalls over the region in late October 1998, culminated in an intense spiral of wind and torrents of water that wrought havoc throughout four countries, well over 60% of the Central America isthmus. The impact of the storm on the ecology of the region will be felt for years to come. Deaths directly caused by these conditions reached almost 10,000, while displaced and homeless persons numbered in the hundreds of thousands. Estimated damage caused by the storm totaled \$3.0 billion in Honduras and \$1.4 billion in Nicaragua.

The storm of the century hit two of the poorest countries in Central America the hardest: Honduras and Nicaragua. Both had been making substantial progress in economic growth and development. Fortunately, the donors, and in particular, the U.S. government, generously responded with material and financial support. This unprecedented response helped to channel energy into reconstruction, and to raise awareness of environmental issues and the need for disaster prevention/mitigation strategies.

While the full impact of USAID-supported reconstruction efforts cannot be measured at least for another 18 months while supplemental funds are still being expended, the activities supported by the Bureau for Humanitarian Response (BHR) ended, for the most part, in 1999. The high visibility and level of involvement of U.S. government officials in the relief period led to several internal reviews of OFDA's participation and the role of other USG agencies in the immediate aftermath of the Hurricane. These reviews were based on Washington coordination/management issues and did not focus much attention on management of relief operations and the impact of these efforts in the field. This assessment analyzes the management issues related to BHR-supported relief activities from the field perspective.

In collaboration with PPC, BHR/PPM led an assessment team to determine the quality and effectiveness of the humanitarian response in the countries most severely affected by the hurricane, Honduras and Nicaragua. We focused specifically on the activities supported by the Office of Foreign Disaster Assistance (OFDA), Food for Peace (FFP) and the Office of Transition Initiatives (OTI).

The team designed a questionnaire and conducted more than 130 interviews among USAID, Embassy and U.S. military officials, international organization staff, PVOs/NGOs, host government counterparts and beneficiaries in the field. The purpose of the interviews was to gather information from respondents on a series of questions focused on four areas: Preparedness among host government, PVO/NGO, and USAID entities; Management of USAID-supported activities; Impact; and Lessons Learned.

Among the three offices responding to the disaster, OFDA was the first on the scene. During the first several months after the storm OFDA provided \$18.9 million of

assistance for relief activities in Honduras and \$8.05 million in Nicaragua. FFP/ER provided almost 3,000 metric tons of food airlifted to three countries in the region and an estimated 52,000 metric tons of sea-freighted commodities. OTI provided over \$3.0 million for a shelter program in Honduras, building on OFDA's investment in macro-shelters and focusing on the more than 30,000 low-income people previously living in marginal conditions along hillsides and riverbeds in Tegucigalpa.

### ***Results of the Interviews***

Most respondents interviewed in the field and Washington conceded that no one was prepared for Hurricane Mitch. Although hurricanes and temporary flooding are common, this event is unparalleled by any in recorded history in terms of the magnitude and scope of the devastation. The fact that the hurricane took an unexpected course, turning west and south after experts had predicted that Guatemala and Belize would receive the brunt of the storm, foiled preparedness measures that would have evacuated people from especially vulnerable areas in Honduras. To further compound the problem, early warning devices (e.g. storm gauge meters on major rivers) were non-existent or failed to function in some cases and in others, were not properly monitored.

Although some initial problems in coordination and communication frustrated a more efficient response, the strong consensus among interview respondents was that **OFDA and its implementing partners did an outstanding job**. DART members worked well with host government counterparts, the U.S. military and the USAID field Missions to assess needs, identify interventions and bring in resources to save lives and alleviate suffering.

In Honduras, within two months of the hurricane, OFDA-funded projects with the International Office of Migration\*(IOM, a U.N. affiliated agency) and PVOs/NGOs had completed the construction of macro-shelters (*comunidad habitacional de transicion - chat*), housing thousands of very low-income families displaced by the hurricane. The shelters provided immediate relief to families who had been living in marginal economic conditions and in unsafe housing. The consensus among interview respondents was that the **chats have been very successful as a relief activity, as a transition to safer housing and a healthier environment for economically vulnerable groups**.

**FFP/ER likewise reacted swiftly** to authorize the use of Title II development commodities in-country. Two major factors facilitated Food for Peace/Emergency Response to Mitch: the availability of Title II commodities pre-positioned in warehouses in the U.S.; and PVOs on the ground in Central America, implementing Title II development programs. Airlifted commodities began arriving a week after the storm. U.S. military and commercial aircraft were used to carry almost 3000 metric tons to three countries in the first few weeks after the storm. This rapid and highly visible response on the part of the U.S. government was recognized and greatly appreciated by host government officials in both countries.

Problems in assessing food needs plagued both countries during the emergency and made it extremely difficult for FFP to do any long-term planning. The delays in the arrival of sea-freighted commodities in Nicaragua, the unavailability of complete rations at any one time in both countries and questions about the impact of food aid on the local economies, called into question the desirability of increased food aid. Despite the misgivings on the part of the Missions (and some host government officials) about the increased influx of food and its potential effects on the economy, a survey undertaken by an NGO found that **beneficiaries in Nicaragua identified food as their number one priority relief commodity.**

OTI provided technical assistance to help the Honduras Mission assess needs and identify options for OTI interventions early in the relief period. With its "Exit Program" - transition to permanent housing- OTI built on the very successful *chat* effort initiated by OFDA. The on-going Exit Program provides for the relocation of 30,000 people to permanent housing through beneficiary participation in PVO/NGO- managed housing loan activities. By all accounts, including beneficiaries interviewed at four project sites, **the OTI-funded effort is a model of OFDA/OTI collaboration and transition programming.** In terms of civil turmoil avoided and the transition of economically marginal families to more stable working and living environments, the OTI/Honduras housing program is a success story. Having demonstrated the viability of the approach in the first few months post-Mitch, OFDA/OTI's investment in housing leveraged an additional \$18 million for housing from Mitch supplemental funds.

On the host government side, institutions charged with disaster response were quickly sidelined by their lack of communication and management capacities. Parallel structures emerged to work with local authorities in identifying needs and in coordinating relief efforts. OFDA-trained personnel at the municipal and local levels were instrumental in organizing the response but no system was in place to locate people who had been trained and to activate a more coordinated response.

**USAID & U.S. Military Coordination.** The assessment team did not review the complex interagency coordination issues involving the USG's response to Mitch from the Washington perspective. These issues are discussed in a recent case study of Mitch which was conducted as part of the "Interagency Review of U.S. Government Civilian Humanitarian & Transition Programs". In addition, the post-Mitch activities of SOUTHCOM and Joint Task Force Bravo are the subject of an on-going year-long evaluation commissioned by the DoD and due for completion in June/July 2000.

In both Honduras and Nicaragua **OFDA's role was critical in facilitating U.S. military participation in search and rescue activities, assessments and delivery of relief commodities** to areas cut off from major transportation routes. In Nicaragua, according to U.S. military officials on the ground, OFDA was instrumental in ensuring that operations proceeded smoothly.



**Impact.** Overall, the contribution of OFDA, FFP, and OTI to relief and transition programs in Central America was timely and appropriate. Visits by the President and other high-level government officials and the approval by Congress of \$700 million in supplemental funds, demonstrated unprecedented support for the region and gained considerable prestige for the U.S. humanitarian program. High-level host government officials, interviewed for this assessment, expressed their gratitude for the official U.S. response as well as the outpouring of contributions from the American public.

The combined effort of OFDA and U.S. military aircraft resulted in saving lives and alleviating suffering of thousands of victims of the hurricane. Search and rescue, health, water and sanitation interventions all directly contributed to the health and welfare of people in the region. The fact that there were no major disease outbreaks is evidence of the effectiveness of preventive health measures and swift action to restore water and sanitation to affected areas. OFDA resources were critical at a time when other USAID, other donor, and host government resources were not readily available to avert major health problems from massive environmental devastation and dislocation of people.

The OFDA/OTI investment in shelter in Honduras directly impacts the lives of some 30,000 people in Tegucigalpa and the thousands of others who were provided shelter throughout the country. These were economically marginal groups who had been living in unsafe, unhealthy conditions. The OTI Exit Program provides an economic ladder to higher status and improved living conditions for groups whose instability would have created fertile territory for civil turmoil.

Selected data from PVO Title II grantees show that nutritional status among children improved dramatically in some areas during the emergency food program. Whether this trend is long term, or solely the result of increased availability of food, is not known. Food not only served the basic needs of the family but was also an income supplement for those whose economic activities had been disrupted. Beneficiaries identified FFW programs as critical in re-focusing their energies away from the tragedy and toward rebuilding. For the most part, FFW programs began months before supplemental funds were available and, thus, filled a critical need for material and financial support at a time when other than food, resources were not readily available.

In terms of institutional strengthening, relief activities began a process that will impact far beyond the relief period. In both countries host government institutions charged with disaster response were sidelined for lack of management capability. One year later, with OFDA and other assistance, COPECO in Honduras is a re-engineered institution with more budget resources, staff, equipment, office space and communication capability. Perhaps more important, Honduras' view of COPECO's role and the need for a strong institution has changed dramatically. Likewise, in Nicaragua, several steps have been taken to bring disaster mitigation to the fore as a priority policy issue.

#### *Recommendations for BHR*

- Clarify USG authorities and responsibilities prior to the next major disaster.
- Work with USAID missions to clarify the role of BHR programs and design a disaster response training program for field personnel.
- Assist in developing USAID policy guidance for use of Development Assistance (DA) resources and other resources for disaster response.
- Issue clear and up-to-date guidance on Missions' responsibilities for oversight of WFP programs in their respective countries.

#### *Recommendations for OFDA*

- Establish a network and database of personnel trained in disaster preparedness and response in Central America.
- Assist countries in Central America to design and monitor vulnerability mapping, early warning and risk management systems.
- Ensure that disaster response teams have access to USGS or other appropriate systems for delivery of resources to victims of a disaster.
- Maintain a continuous dialog with USAID missions on prevention/ mitigation issues.
- Continue to work closely with FFP on disaster response.

#### *Recommendations for FFP*

- Ensure timely, continuous, knowledgeable support from FFP/W to the field.
- Provide field missions with support in food aid coordination on an on-going basis.
- Ensure that mission disaster plans include details on emergency food assistance.
- Play a more active role in the design and implementation of WFP activities through the USAID representative in Rome and increased collaboration with USAID Missions.
- Work with OFDA to clarify guidance on use of IDA funds in tandem with emergency food aid.
- Explore the possibilities of increasing pre-positioned commodities for disaster response.

#### *Recommendations for OTI*

- Continue to work closely with OFDA on collaborative relief-transition activities.
- Consider longer timeframes for activities that involve a high degree of beneficiary participation and skills training.
- Future shelter activities should focus more effort on strengthening host country institutions.

## **I. Introduction and Background**

### **A. Assessment Methodology and Organization of the Report**

The purpose of this study was to assess the quality and effectiveness of USAID's humanitarian response to Hurricane Mitch in Central America. We focused on the relief efforts carried out by USAID's Bureau for Humanitarian Response, specifically activities supported by the Office of Foreign Disaster Assistance (OFDA), Food for Peace/Emergency Response (FFP/ER), and the Office of Transition Initiatives (OTI) in Honduras and Nicaragua.

BHR/PPM took the lead in coordinating the work of four consultants and in gathering documents and interview data in Washington, D.C., Miami, and Central America. During the months of January and February, the Team did an extensive review of documents and conducted interviews at USAID, U. S. Embassies (including U.S. military liaison personnel), other international organizations, other U.S.G. agencies, and host-government institutions. In total, the Team conducted some 130 interviews in Washington, Miami, and the field.

The interview questionnaire focused on four areas for assessment:

1. Preparedness. Major factors that facilitated or hindered BHR's response.
2. Management of the Response. Communication and coordination issues concerning USAID and other USG agencies.
3. Impact of the Response. Health, nutrition, housing, agriculture sector conditions pre and post Mitch.
4. Lessons Learned. Institutional and/or program changes as a result of Hurricane Mitch relief activities and their impact on the present reconstruction efforts.

The report is organized into four sections. The first section, Response to the Emergency, describes the actions taken by OFDA, FFP/ER and OTI in Honduras and Nicaragua in the aftermath of Hurricane Mitch. In the case of OFDA, activities were completed, for the most part, by the middle of 1999. Since OFDA provided significant support for the U.S. military's southern command operation (SOUTHCOM), we have also included a discussion of their related activities. Following SOUTHCOM, the report describes the activities supported by FFP/ER with Title II commodities. There were two distinct phases: one covered the immediate emergency response in November 1999 and focused on airlifting commodities; the second phase involved sea freighted commodities and lasted until mid-1999 in Nicaragua and almost to the end of

1999 in Honduras. Finally in this section, we describe the activities funded by OTI in Honduras. These activities are ongoing and scheduled to end in August 2000.

The second section of the Report, Preparedness Issues and Overall Management of the Response, presents a synthesis of the interview respondents' answers to questions concerning: timeliness and appropriateness of the response; and communication and coordination within USAID, other USG agencies, and partners in the field. The third section, Impact of the Response, identifies noteworthy outcomes of the interventions undertaken by OFDA, FFP and OTI. Finally, the last section highlights the recommendations and lessons learned from USAID's experience.

## **B. Political and Economic Context**

**Honduras context pre-Mitch.** Before Mitch, Honduras was the fourth poorest country in Latin America with per capita annual incomes below \$750 and more than 65% of the population living in poverty. The country ranks third from the bottom in the Human Development Index (HDI) for Latin American countries, which is a measure not of the wealth of a country, but of quality of life, i.e. the standard of living for average citizens. And, among countries in the Western Hemisphere, Honduras scores second from the bottom in the Corruption Perceptions Index (CPI). The rural population is more than half the total (53%) while single females headed 27% of households. Most peri-urban populations were (and probably continue to be) located in high-risk areas in terms of potential flooding.

The Mission reported that prior to Mitch, Honduras was making significant progress in addressing severe poverty, protectionist economic tendencies, archaic judicial practices, health and education system deficiencies, and widespread environmental degradation. The damage and losses caused by Mitch have set the country back years in its development efforts. The disaster struck Honduras during the first year of the new presidency of Carlos Flores. The process of reconstruction is seen as an opportunity to test Honduras' commitment to its fragile democracy and transform institutions and programs into stronger and more effective elements in the foundation for a new society.

**Nicaragua context pre-Mitch.** Nicaragua is a country that has suffered historically from civil unrest and natural disasters due to earthquakes, tidal waves, volcanic eruptions, hurricanes and drought. Annual flooding in the rainy season and wild fires during the dry season have been on the rise primarily due to the cumulative effects of precarious housing and destructive agricultural practices, including widespread burning of fields.

Nicaragua remains the second poorest country in Latin America, ranks second to the bottom on HDI for Latin America (Human Development Report, 1998)

and scores just below Honduras in corruption among Central American countries (Transparency International, 1998). Unlike Honduras' capital city, Managua was spared severe damages from Mitch, but the poorest regions of the country, the northwest and central areas were hardest hit.

Although Nicaragua was on a path to recovery after 10 years of civil war, economic growth has been set back by the severe economic consequences of Hurricane Mitch. The Mission reports that prior to Mitch, greater than expected gains had been made in assistance to small farmers, micro-enterprise, and health/family planning indicators. Some improvements were also recorded for democratic initiatives.

The Central Bank had predicted a GDP growth of 5.8% in 1998, led by strong performance in the agricultural sector. After Mitch the projected growth of 1998 GDP dropped to 4% and the 1999 GDP growth rate was expected to drop further to 2.4%. However, due to the increased flow of donor resources, the Mission reports that the actual rate of growth was 7%. The inflation rate, held to 7.2% in 1997, climbed to 18% by the end of 1998, attributed largely to the effects of Mitch.

### **C. Summary of USAID Assistance to Honduras and Nicaragua**

**Honduras.** Prior to October 1998, the Mission's strategic framework included four objectives: 1) expanded and equitable access to productive resources and markets; 2) sustainable management of selected natural resources and biodiversity; 3) sustainable improvements in family health; and 4) more responsive democratic processes with greater citizen participation. The program operated at a \$ 20 million funding level. The supplemental funds approved by the Congress in May 1999 authorized the Mission to spend approximately \$300 million for reconstruction and Hurricane Mitch recovery programs over the next two years.

**Nicaragua.** The Mission's strategic framework for its development program up until Hurricane Mitch focused on three sectors: democracy and governance; economic growth; and health/education. In the early 1990s the Mission's program was one of the largest USAID programs. By the latter half of the 1990s, it had declined to about \$35-40 million annually. Mitch supplemental funds authorize the Mission to spend \$94 million in reconstruction activities over the next two years

### **D. Damage Assessment**

Hurricane Mitch was the worst natural disaster in the recorded history of Central America. What began as continuous and sustained heavy rainfalls over the region in late October 1998, culminated in an intense spiral of wind and torrential rain that wrought havoc in four countries in Central America. Rivers

overflowed and some changed courses. Hillsides were transformed into mudslides that buried whole communities. Widespread flooding in low-lying areas and massive destruction of roads, bridges, infrastructure, dwellings and livelihoods affected millions of people in the region. It is estimated that deaths directly caused by these conditions exceeded 9,000. Displaced and homeless persons numbered in the hundreds of thousands.

**Honduras.** Honduras, like its neighbors, is a disaster prone country that has suffered a number of smaller emergencies in the past several years. The north coast in particular suffers perennial flooding, but residents and local agencies have managed to cope with these problems in recent years. No disaster in Honduras, however, has ever approached the scope and magnitude of destruction wrought by Mitch.

The storm of the century affected virtually the entire Honduran population. It is estimated to have killed 5,657 people, injured about 12,000, left about 8,000 missing and drove over 400,000 to seek refuge in more than 1375 shelters. The great majority of the victims were in three departments: Colon, on the northeastern coast; Cortes on the northwestern Atlantic coast and Choluteca on the southern Pacific Coast. Both rural and urban people lost their livelihoods as Mitch destroyed cropland, markets, businesses and factories and commercial agricultural fields. Widespread poverty, population pressure and urban sprawl contributed to the magnitude of the disaster.

The effects of Honduras' agricultural and natural resource management policies also contributed to the disaster: widespread deforestation and the cultivation of marginal land due to population pressure contributed to landslides, and inadequate watershed management exacerbated flooding. The poor, who live in inadequate housing in marginal areas, were the hardest hit by this combination of natural and man-made disasters.

There is consensus among the donors that the figures on damages in Honduras from Mitch are inconsistent. The initial damage reports generally have been revised downward and the GOH figures are regarded as high. The figures in this section of the report, therefore, are approximate. The USG estimated total damages in Honduras at more than \$3 billion. Mitch damaged roads, bridges, and ports; electrical, water, sewage, and telephone systems; hospitals, health care centers, schools and housing; the agricultural and livestock sector; and the industrial sector.

Other than the loss of life, the single most devastating effect of Hurricane Mitch was the destruction of the road (including bridges) system. Approximately 1,500 miles of paved roads were destroyed, 3,500 miles of unpaved roads were severely damaged, and 189 bridges were destroyed. The estimated cost of the repairs is \$US 450 million.

Other key infrastructure also was damaged. Honduras' largest airport and commercial hub in San Pedro Sula lost its navigational aids, which will cost US\$

4.3 million to replace. Water and sewage infrastructure throughout the country was the hardest-hit of all utilities. Tegucigalpa's water distribution system was destroyed. About half of Honduras' 27 hospitals lost their water systems and the large social security hospital in Tegucigalpa was flooded up to the fifth floor. The Ministry of Education suffered an estimated US\$ 36 million of damage: approximately 25% of the nation's schools were damaged, the Ministry's building was flooded, and all the education records and one million books were washed away.

The hurricane's greatest economic impact was on Honduras' agricultural sector that generates about one-quarter of GDP and employs about one-third of the work force. The Choluteca River caused significant damage from the capital to its mouth in the Pacific as it swept away crops, livestock, machinery, agricultural infrastructure (irrigation systems, fencing, inputs) and land. Land alongside the rivers lost its fertile topsoil and sediment covered croplands in some areas. About 20% of the country's primary export crop, coffee, worth an estimated US\$ 71 million, was lost. This sector includes about 84,000 small coffee farms that do not have insurance to cover their losses. Ninety percent of the banana plantations in the north that produce Honduras' second major export crop was lost and exports will not resume for one to two years. Some of the land was so devastated that the plantations cannot be rebuilt. The shrimp farms on the Pacific coastal plain that produce Honduras' third important export crop were seriously damaged but expected to resume production in 7-8 months.

Mitch changed the course of two major rivers in the area, which may cause agricultural production problems in this sector over the long term. These losses are a blow to the Honduran economy that is highly dependent on their revenues and particularly their foreign exchange earnings.

The hurricane caused losses in other export crops including pineapple, other fruits and vegetables, palm oil, beef, and timber. In 1997 these crops generated approximately US\$ 150 million in foreign exchange. Forty percent of the pineapple and palm oil plantations were affected and the melon crop was destroyed; the secondary economic effect was the loss of employment for local manual laborers.

Honduras' production losses and import needs for 1998/99 are summarized in the table below. A GOH emergency program that provided inputs to farmers to support production in the second planting season, after the hurricane, helped compensate for crop losses. The second-season corn harvest was expected to be 12% higher than the average of the last five years' harvests (vanHaeften 1999).

Crop	% Loss in 1998/99 (MTs)	Import Needs in 1998/99 (MTs)	Total Imports in 1997 (MTs)
Corn	20% (122,000)	239,000	119,846
Beans	11% (10,000)	21,000	20,458
Rice	38% (10,000)	65,000	38,489
Sorghum	9% (9,000)	56,000	

The industrial sector's infrastructure, machinery, and production were hurt by the storm. The loss of other infrastructure and services—transportation, water, electricity, and peoples' inability to get to work—exacerbated the sector's damages. The clothing-assembly factories (*maquilas*) that provided 100,000 jobs and generated US\$ 308 million in 1997 suffered from flooding and absenteeism but had resumed production by mid-November. The floods damaged or destroyed many businesses' stocks and unknown numbers of small/medium businesses are not insured. The U.N. reported direct damages of approximately US\$ 100 million and indirect damages of approximately US \$496 million in the industrial and commercial sector (U.N. 1999).

**Nicaragua.** Hurricane Mitch covered half the country over a 10-day period and dropped an amount of rain equal to the amount that usually falls in one year. An estimated 20% of the population and 60% of the country were affected, mostly the communities in the north and west, the poorest and most isolated areas of the country. Over 3,000 people lost their lives while an estimated 870,000 lost their property and/or livelihoods. Eighty percent of the deaths occurred as a result of a mudslide from Las Casitas volcano in Posoltega in the northwestern department of Chinandega.

The Government of Nicaragua (GON) has estimated the damages at \$1.4 billion. The transportation sector (road and bridge systems) was most severely affected, accounting for 60% of the damages, followed by agriculture (15%), housing (10%), education (3%), health (3%), forestry (3%), energy (2%) and other. The estimated damages in the housing sector were later revised downward. About 6500 kms. of paved and unpaved roads were damaged or destroyed. Communications in all of the principal towns and cities in the affected areas were cut off temporarily. A total of 575 communities were completely isolated.

Over 41,000 homes were destroyed or partially damaged. Hundreds of schools were damaged and hundreds of others were diverted from the education sector for use as temporary shelters. The GON estimated that the cost of replacing housing damaged or destroyed at \$144 million.



Of the 7685 public education facilities in the country, 512 were damaged or destroyed. In addition, almost 300,000 textbooks and 80,000 desks/chairs, and other school materials were lost. An estimated 555 teachers were left homeless. Overall, the GON calculated the losses to the education sector at over \$43 million.

In the primary health care sector 102 facilities were damaged or destroyed. These facilities include one hospital, 30 health centers and 71 health posts. The GON calculated the damages to health sector infrastructure at \$35.4 million. Fortunately, no major epidemics of infectious disease related to water or vectors, occurred except for dengue, transmitted by a day-biting mosquito. The only other major health problem reported was leptospirosis, a disease transmitted by rodents. Over 55 cases were reported and 7 deaths occurred. Fast action on the part of public health officials avoided a major cholera outbreak. Malaria and meningitis were kept under control.

The containment of infectious disease is a major accomplishment given the extensive damages to the water and transportation systems. Mitch affected a total of 79 water systems, affecting almost one million people. The GON estimated the damages to water and sewerage at \$9.1 million.

Damages to the ecology are very difficult to estimate. These damages include: massive mudslides, flooding along river beds, destruction of agricultural lands, erosion, deforestation, destruction of vegetation, contamination of water supplies. A total of 33 rivers were contaminated with agro-chemicals, sediments, and debris. A preliminary estimate calculated the costs of these damages at \$39.6 million.

In the agriculture sector losses were estimated at \$500 million. Small farmers working at the subsistence level were affected most of all. Losses of corn, beans, sorghum and rice were estimated at \$46 million while export crops such as coffee, banana and sugar suffered losses estimated at \$37 million. About 20% of the cultivable land lost top soil. Deforestation and ecological vulnerability due to adverse water and agricultural practices, contributed to and exacerbated the serious losses in this sector.

<b>Crop</b>	<b>% Production Lost</b>	<b>Cost (US\$)</b>
Corn	50%	\$3.4 million
Beans	71%	\$3.4 million
Sorghum	22%	\$22 million
Rice	28%	\$17.6 million
Coffee	18%	\$14.4 million

## **II. Response to the Emergency**

### **A. OFDA**

#### **1) Honduras (\$18.9 million)**

As early as October 30, 1998, OFDA had mobilized DART teams and relief supplies such as plastic sheeting, water storage bladders, and water jugs to respond to the emergency. In the following 2-3 weeks, much of the emergency work was well underway. Of the \$18.9 million provided by OFDA, over \$7 million was disbursed to 12 international PVOs and local NGOs that had a long-standing relationship with the USAID mission. The International Organization of Migration (IOM, affiliated with the United Nations but considered an "independent associated agency") received \$4.1 million for the provision of transitional housing. About \$4 million was destined to the DoD for airlift of emergency supplies. \$2.1 million was provided under agreements with the GOH: SANAA (\$1 million) and FHIS (\$1 million) for emergency repairs to water systems; and COPECO (\$125,000) for the local purchase and delivery of food and supplies. An OFDA agreement with PAHO (\$1 million) resulted in the provision of medical supplies and repairs to health facilities.

Fortunately, USAID/Honduras had long-standing relationships with PVOs/NGOs that were strongly positioned to tap into their extensive local networks for distribution of emergency food, shelter, medicine and health care. Mission personnel approved \$100,000 grants that were disbursed to seven PVOs, in as little as three days.

A second phase of OFDA funding began in late November and five additional NGOs received funding, for a total of 12 grantees. Shelter, water and sanitation, and health were the primary activities undertaken. Other areas that were assisted by OFDA funding include: income generation; agriculture; school reconstruction; tools for general clean up and reconstruction; small bridge repairs; and secondary road reconstruction.

**Search & Rescue.** A total of \$4 million was provided to the DoD for damage and needs assessments, search and rescue as well as airlift of emergency supplies, in conjunction with the DART teams. The U.S. military response was immediate in the 11 disaster regions identified. Based on a consensus among host-country officials and USAID, daily movement plans were developed at JTF Bravo for OFDA-funded helicopter and small aircraft flights. A more in-depth discussion of the U.S. military response (SOUTHCOM) follows this section. Resources under OFDA's long-standing agreement with Miami-Dade County Fire & Rescue were also tapped to assist in rescue efforts in Honduras during the first two weeks after the hurricane.

**Shelter.** Emergency plastic shelters were erected throughout the country and essential household supplies were purchased and distributed to each family living in temporary shelter. A total of 23 temporary shelters were assembled in the Tegucigalpa area alone and in some cases these people were moved from temporary locations to macro- shelters built by the IOM with OFDA funds.

In the first few months of 1999, IOM received \$4.1 million for the provision of transitional housing for approximately 5,000 low-income families (30,000 people) nationwide with approximately 30% residing in the Tegucigalpa area. Although many households were able to find refuge with family members, macro-shelters accommodated those who were still occupying public facilities (schools, churches, community centers and even stadiums). A starter package of essential household supplies, purchased by OFDA, was distributed to each incoming family. Working day and night, the large shelters were built in a record one-month's time and allowed the schools to be vacated prior to the beginning of the academic year. By June 1999 the shelter population had been reduced by about 80% of the initial size.

During the second phase of OFDA funding, Save the Children (STC), Catholic Relief Services (CRS), *Aldea Global* (PAG) and the Cooperative Housing Foundation (CHF) were involved in housing repair and construction projects for over 11,000 homes. Nearly 16 months after Mitch, some families continue to live in temporary plastic shelter although the OTI-funded activities, described later in the section, are in the process of moving all of the families in Tegucigalpa macro-shelters into permanent housing. The process of relocating people has been delayed by complex land tenure laws that are formidable obstacles to expediting the transition to more permanent solutions.

**Water & Sanitation.** PVOs in Honduras were actively engaged in the repair of damaged or destroyed water and sanitation systems. An estimated 400 community water systems have been repaired and chlorine packets were distributed to families for water purification. In conjunction with this work, 1,975 latrines were repaired and/or re-built.

Additional OFDA funding (\$2.1 million) was provided under agreements with the Government of Honduras: SANAA (\$1 million) and FHIS (\$1 million) for emergency repairs to water systems; and COPECO (\$125,000) for the local purchase and delivery of food and supplies. With OFDA funding and about \$2.7 million in GOH funding, FHIS conducted rapid appraisals to identify and develop agreements with qualified contractors. FHIS openly competed proposals to develop and/or repair water systems in areas of greatest need. OFDA funding was awarded in December 1998 and spent by mid-1999. OFDA/USAID was the largest international donor to the water and sanitation sector.

**Health.** OFDA gave \$1.01 million to the Pan American Health Organization (PAHO) for: medical supplies and medicines; repairs to health facilities; prevention, surveillance and control of outbreaks; water supply systems;

replacement of essential equipment; logistic needs; education and health promotion; and, solid waste management (installation of latrines). OFDA was the primary donor to PAHO/ Honduras for post-Mitch activities.

## 2) Nicaragua (\$ 8.05 million)

OFDA funded rapid responses for the purchase and distribution of local emergency supplies totaling \$420,000. More than half of this amount, \$245,000, was disbursed in the form of very small grants awarded to about 17 requestors. In addition, Nicaraguan Civil Defense received \$419,000 from OFDA for supplies while the U.S. DoD was reimbursed \$1.2 million for emergency food, medicine and supply airlifts. By late November, larger grant proposals were being reviewed, however, for the most part they were not awarded until early 1999. Larger grants, were directed toward the following sectors: agriculture (\$2 million); health (\$2.35 million); and, transitional shelter (\$1.65 million).

**Agriculture .** The GON reported that economic activity was hardest hit by damages to the agriculture sector. Hurricane Mitch arrived just at the time when much of the country was about to harvest the second and largest crop (*la postrera*). Overall, about 30% of food crops (rice, beans and maize) were lost and much of the seed stock for future plantings was destroyed. The storm had the added effect of washing away fertile topsoil, exacerbated by poor vegetative ground cover due to rampant deforestation.

However, on the positive side, high amounts of rainfall left residual moisture in the soil and that presented an opportunity for promoting the planting of a third crop, or *apante*. Local seeds, unfortunately, were in short supply and deemed to be of poor quality. An additional constraint was that the two major contractors in the Mission's agricultural portfolio, Development Alternatives, Inc. (DAI/Promesa) and Winrock International, were new and just beginning to initiate field activities.

Development Alternatives, Inc. (DAI/Promesa) received a \$600,000 OFDA grant in mid-January to import hybrid maize and bean seeds, treat them, and distribute them to 10,000 small farmers. Each farmer was given a package consisting of 25 pounds of hybrid seeds (enough to plant 1 *manzana-mz.* of maize and 1 1/2 *mz.* of beans), one bag of starter fertilizer, one bag of urea and \$30 cash. Sub-grants to local NGOs identified farmers and distributed the packages. The cash was part of an OFDA grant to the International Federation of the Red Cross (IFRC) which distributed it to DAI/Promesa sub-grantees.

Winrock International was awarded \$550,000 of OFDA funding for the purchase and distribution of non-traditional crop seeds and agricultural implements such as: garden tractors; wheel barrels; shovels; rubber boots; machetes; saws, etc.

Thirteen sub-grantees were charged with pick-up and distribution of agricultural commodities from central warehouses and they were given the option of donating, renting or selling them. World Relief, with years of experience in Nicaragua, assisted with logistics, including local storage space at the community level. Winrock also used the opportunity presented by Mitch to introduce plastic starter trays for seeds, a new technique for most farmers, that greatly increases the survival rate of seedlings. The beneficiaries were approximately 4,000 small farmers.

World Relief received \$500,000 in OFDA funding for the purchase and distribution of basic grain seed as well as larger agricultural implements such as coffee de-pulpers and irrigation systems. World Relief was in a position to assist the newer contractors with management as well as logistic concerns. The World Relief network operates farm stores, which doubled as distribution sites for emergency supplies, and they have well-trained promoters in the field who were able to further assist efforts.

The Alistar Foundation was awarded \$200,000 for the provision of food and agricultural tools in BOSAWAS, a hard hit yet under-served area in the north central part of the country. This is one of the poorest areas of country, hardest to reach (*pangas* or small boats are the mode of transport to communities along the Rio Coco) and is populated by several non-Spanish speaking, indigenous groups.

**Health.** The largest USAID grantee in the health sector was PAHO (\$850,000). Within 90 days, PAHO had purchased medicines to control outbreaks and distributed them to the *SILAIS* (departmental health offices in the decentralized public health system) where they were sorted into packages. At the municipal level, inventories were recounted and distributed to municipal health centers, often in the widely publicized presence of the *SILAIS* director and the mayor.

Although chlorine was available locally and widely distributed, contaminating debris found its way into local water sources making it necessary to filter water in addition to chlorinating. In response, OFDA funded ENVASA (\$400,000) to produce 40,000 simple and locally assembled household water filters. Clarke Mosquito Control received \$500,000 in OFDA funding to distribute 29,000 mosquito nets impregnated with an approved chemical compound that both repels and kills insects, especially the night-biting mosquito that spreads malaria.

**Transitional Shelter.** The International Federation of the Red Cross (IFRC) was awarded a \$1.65 million grant to provide transitional shelter to about 3,000 families left homeless after the hurricane. Entrance criteria for the program required that beneficiaries demonstrate loss of home in the designated community and a commitment to provide manual labor for construction. IFRC member societies as well as CARE, Ayuda en Acción; Popul-Na and Jubilee

House were sub-grantees providing transitional shelter to 22 priority communities.

The first project disbursement was made on May 7, 1999, and the first construction began in mid-May in Nueva Segovia (Dutch Red Cross) and in Matagalpa (French Red Cross). By December 1999, 74% of the projected temporary housing had been completed. The Mission recently reported that a new grant was signed with UNDP and Ayuda en Accion in June 2000 which will bring the total number of planned temporary houses to over 3700.

## **B. SOUTHCOM—Related Activities**

Although well positioned to respond, SOUTHCOM was not alone in reporting that the magnitude of Hurricane Mitch was beyond their capability. SOUTHCOM serves Latin America and the Caribbean and interfaces with PAHO, regional disaster agencies and OFDA for its relief activities. When disaster strikes, SOUTHCOM's role is to provide military support to civilian authorities. Relief activities include damage and needs assessment flights, search and rescue, supplies transportation, warehouse management (with OFDA) as well as disaster relief conferences coupled with humanitarian exercises, under the *Fuerzas Aliadas Humanitarias* (FAHUM) and New Horizons programs.

The request for SOUTHCOM support is normally channeled through OFDA/USAID to the State Department and on up to the National Security Council. However, the Commander in Chief (CINC) has the authority to act immediately and independently of normal channels to save lives.

By December 1998, USAID/OFDA assistance to Honduras, Nicaragua and the region resulted in significant levels of funding for the DoD or 38% of a \$26.4 million budget. In addition to OFDA funds, channeled administratively through DoD, SOUTHCOM used significant funding from their own operations budget.

SOUTHCOM had recent experience with Hurricane Georges in the Caribbean, occurring just months before Hurricane Mitch. Thus, their contacts with OFDA and other key USG agencies were up to date and operational. Increased participation from LAC countries in the FAHUM conferences, especially during the past five years, was viewed by SOUTHCOM as helping to mitigate the effects of the hurricane since many of the host country counterparts had received training and relationships with SOUTHCOM had been developed.

Warehouse management in Panama and New Windsor was working well and pre-positioned commodities were easily accessed. The stocks listed for these warehouses include tents, plastic sheeting, blankets, water tanks, water

containers, Humanitarian Dietary Rations (HDRs), chainsaws, hard hats, work gloves, body bags and respirators.

The response to Mitch entailed activities conducted during three phases: Emergency; Rehabilitation; and, Restoration. During the Emergency Phase, SOUTHCOM was engaged in life saving missions, emergency delivery of relief supplies, and medical assistance in four Central American countries at a cost of \$42.5 million. Their specific activities are summarized below:

<b>Emergency Phase (Oct. 30 - Nov. 26, 1998)</b>	
Lives saved	1,052
Food distributed	3,245,100 lbs.
Medical supplies distributed	131,000 lbs.
Water distributed	120,000 gals.
Troops	2,102
Helicopters	39 aircraft; 440 sorties; 1686 hrs.
Planes	6 aircraft; 200 sorties; 385 hrs.

During the Rehabilitation Phase, 5,400 troops made repairs to infrastructure required to reestablish national capabilities to provide for health and basic welfare of the populace. Joint Task Force (JTF) operations were involved in expanded New Horizons activities. Structures, power, roads, bridges, wells, and medical facilities were repaired during the 75-80 days following the Emergency Phase at a cost of \$112.5 million.

The Restoration Phase is designed as a long-term effort to repair infrastructure, rebuild economies and fully mitigate storm damage. The cost of this phase is \$70 million and entails the following on-going activities:

<b>Restoration Phase (On-going)</b>	
Clinics	12
Medical outreach posts	39
Wells	27
Roads	90 km
Bypasses	26
Bridges	2
Schools	33

## **C. Food for Peace Title II Response to Hurricane Mitch**

### **1) The Regional Response**

Food for Peace (FFP) reacted quickly to Central America's need for emergency assistance after Hurricane Mitch. USAID had more than 10,400 MTs of Title II commodities in the region for its regular programs that, on October 28, 1998, were redirected to the emergency response. This quantity was enough to feed 750,000 people for thirty days. USAID and USDA also procured nearly 20,000 MTs of rice, beans, cooking oil, and CSB, sufficient to feed one million people

for 30 days. In addition, on November 3, 1998, USAID announced a \$20 million emergency food aid package to the three hardest-hit countries: \$10 million for Honduras, \$7 million for Nicaragua, and \$3 million for Guatemala. Later in November, Honduras' emergency FFP package was increased to \$25 million for programs to feed 800,000 vulnerable people for about nine months. Nicaragua's emergency FFP package was increased to \$12 million to support 300,000 people for six months.

Food-aid airlifts to those three countries began arriving on November 7 and one week later about 2,700 MTs of food had arrived. A total of 1,055 MTs were airlifted to Honduras, about 1,400 MTs to Nicaragua, and 270 MTs to Guatemala. By the end of 1998 USAID's emergency food aid response to Central America totaled \$52 million. USDA supplemented this response with 180,000 tons of wheat worth \$27 million and 50,000 tons of corn worth \$6 million to be monetized for reconstruction activities. USDA also provided \$20 million of Food for Progress grants to Honduras and Nicaragua, and \$10 million of PL 480 Title I loans each to Guatemala and El Salvador. This constituted a 387% increase in USDA's food assistance to Central America which before Mitch was valued at \$14.6 million.

Table 1. Summary of Food Aid to Central America  
After Mitch, as of December 1998 (source: Fact sheet #22)

USAID Program	Resources
Title II Food for Peace on-hand in the region	10,400 MTs
Title II commodities airlifted	2,700 MTs
USAID and USDA food procurement	20,000 MTs
Emergency Food for Peace package for the region	\$52 million

From the end of October 1998 through FY 1999, FFP provided 116,000 MTs of commodities valued at \$70.7 million to Honduras, Nicaragua, El Salvador and Guatemala. The four Central American countries were allocated the following amounts of the total FFP emergency commodities: Honduras, 64%; Nicaragua, 26%; Guatemala, 8%; and El Salvador, 2.7%. The WFP managed 55% of the Title II commodities—64,000 MTs, valued at \$35 million—for its Emergency and Protracted Relief and Recovery Operations (PRRO). It provided food for 600,000 hurricane victims in Honduras; 400,000 in Nicaragua; 65,000 in Guatemala, and 60,000 in El Salvador (WFP, December 1999).

PVOs in Guatemala, Honduras, and Nicaragua managed about 52,000 MTs valued at almost \$36 million. Honduras received 75% of the PVO-managed commodities; Nicaragua received 15%, and Guatemala received 9.7% (Table



3). The quantities and value of Title II commodities for Central America increased two to four-fold in response to Hurricane Mitch.

Table 2 The Emergency Title II Commodities Managed by the PVOs in Central America,  
Oct. '98- Apr. '99  
(source: FFP/Emergency Response Division)

Country	Metric Tons		Value in \$US Million	
	Total	Percent	Total	Percent
El Salvador*	None		None	
Guatemala	5,080	9.7	4,054,800	11
Honduras	39,386	75	25,769,000	72
Nicaragua	7,851	15	6,070,800	17
Total	52,317	100	35,894,600	100

\*In El Salvador, none of the emergency Title II commodities were distributed through PVOs.

Table 3. Pre and Post Mitch PVO Title II Resources in Central America  
(source: FFP/ER and FFP/DP)

Country	Development Title II Programs	Regular Title II Program Resources*		Emergency Title II Resources (October '98 to April '99)		Percent Difference, Regular and Emergency Programs	
		MTs	\$US Millions	MTs	\$US Millions	MTs	Value
Guatemala	FFW, MCH	14,735	\$8.737	5,080	\$4.055	-66	-54
Honduras	Integrated Rural Development	12,000	\$4.600	39,386	\$25.769	+228	+460
Nicaragua	Maternal-Child Health	3,700	\$2.532	7,851	\$6.071	+112	+140

\*Does not include Guatemala's monetization of commodities.

## 2) The Title II Emergency Response in Honduras

The agricultural sector was severely damaged in Honduras as a result of Mitch. The initial estimate of 1.2 million food-insecure people later was regarded as inaccurate but a definitive estimate was never made. Honduras historically is a food-deficit country, and in 1997 imported over 300,000 MTs of staples -- corn, beans, rice, and wheat (van Haeften 1999b). The only regular FFP Title II contribution to food security had been CARE's integrated rural development program that distributed about 12,000 MTs of commodities annually (rice, beans, oil, CSB, wheat) with a value of approximately \$4.8 million dollars since 1989. CARE's overall objective has been the sustainable improvement of food security, primarily in the departments of Lempira, Intibuca, and La Paz, and secondarily in Comayagua and Valle. This program reached 128,000 beneficiaries per year and included FFW to improve basic infrastructure. Before Mitch, the WFP also had a food security oriented program of MCH and FFW with an annual budget of \$5 million.

FFP/ER's immediate response to Mitch was to authorize airlifts of pre-positioned commodities and to permit CARE to use in-country regular Title II stocks for emergency relief. The Title II program designated about 2,400 MTs of CARE's commodities for relief in the immediate emergency zones. CARE started emergency relief distribution on October 31, 1998. Approximately 1,055 MTs of airlifted food, consigned to CARE, arrived in Honduras one week after the hurricane. The total commodities distributed through CARE were sufficient to feed 275,000 people for 30 days.

Twenty percent of the total Title II emergency program for Honduras was used for direct distribution. CARE's program included rations for 9,000 flood victims and a total of 14,200 people in 46 shelters. In addition, CARE distributed 18,300 MT to a monthly average of 110,700 beneficiaries mainly through FFW activities. CARE's FFW program operated in ten departments, 67 municipalities, and nearly 900 communities.

Catholic Relief Services (CRS) brought in emergency relief expertise from its Peru office and became the Mission's second major cooperating sponsor for emergency food aid. *Aldea Global* later became an implementing partner with CRS in the Food for Work (FFW) program

During 1999, CRS distributed about 18,500 MT of Title II food to a monthly average of 105,808 beneficiaries, mainly through its emergency FFW program. CRS coordinated its FFW activities with four partners in 46 municipalities in seven departments. Its partners were the Archdiocese of Tegucigalpa, the Diocese of Olancho, the Diocese of Trujillo, and *Aldea Global*.

By May 1999, USAID's two Title II PVOs were reaching an average of about 18,000 people per month with direct distributions and had about 240,000 participants in their FFW programs. The major sectors that benefited from FFW activities and the percent of resources each received were as follows: rural roads and bridges (17%); housing (16%); agriculture (16%); and water and sanitation (12%).

The WFP Emergency Operation used 25,200 MTs of Title II commodities (plus some 22,600 MTs from other donors) for direct distributions to vulnerable groups and in a short FFW program.

USAID/Honduras organized the Inter-Institutional Food Coordinating Committee--composed of CARE, CRS, WFP and SETCO--to coordinate the emergency food assistance. This committee defined each agency's coverage area and standardized the ration size and mix for all USAID grantees.

After the emergency period, FFP/Development Programs (DP) funded CRS's one-year transition activity proposal (TAP) that began in December 1999. This activity provides 3,500 MTs of commodities for FFW and 5,900 MTs of wheat for monetization that will generate approximately \$820,000 for ITSH costs. CRS will use these resources as well as resources from various other donors for housing projects in parts of Colon, Olancho, and Francisco Morazan, the departments where its emergency Title II programs operate. The Title II commodities will support approximately 500 FFW families, or three thousand beneficiaries, in building new houses. Other material inputs to support the housing activity will be provided by CRS and various European donors. CARE will not have a transition program; its DAP was not permanently affected by the emergency programs, and it has resumed its regular Title II development program. CARE has prepared a new DAP that is being considered by FFP. If approved, this activity will serve as a follow-on program when their current DAP ends in September 2000.

### **3) The Title II Response in Nicaragua**

Nicaragua has a structural food deficit that results in widespread food insecurity and malnutrition among young children. Hurricane Mitch exacerbated Nicaragua's agricultural production and food insecurity problems when it destroyed crops in the field, swept away household resources, and left an already vulnerable rural population to rebuild their lives. The poorest regions of the country, also where the regular Title II programs were operating, coincided with those hardest hit by the hurricane.

The PVOs, therefore, had the advantages of existing social networks, warehouses, and local personnel with some knowledge of food distribution. In 1998, twenty-five percent of Nicaraguan children under five were reported to suffer from chronic malnutrition. In Jinotega, where PCI was working, these rates were as high as 39%.

In FY 1998, Nicaragua's Title II development program was only \$2.5 million, the smallest in the LAC region. That year, three PVOs--the Adventist Development and Relief Agency (ADRA), Project Concern International (PCI), and Save the Children (STC)--distributed about 3,700 MTs of Title II CSB and vegetable oil as part of their Maternal/Child Health (MCH) programs. ADRA's program operated in 281 communities in northwestern Nueva Segovia and Esteli; PCI worked in 242 communities in north central Jinotega; and STC worked in 148 communities in northwestern Leon and Chinandega. These regular Title II programs provided health education and monthly rations to pregnant and lactating women, and to malnourished or at-risk children 6-36 months of age.

The WFP also received Title II commodities--560 MTs, worth \$246,000, in FY98--for its nutrition programs. The GON received \$11 million worth of Title I and III commodities for its development programs in FY98.

The emergency period was designated as October 1998 through April 1999 for purposes of the Title II/ER program in Nicaragua. The Mission authorized the PVOs to use their in-country Title II commodities for emergency relief and suspended their regular programs. ADRA had about 500 MTs and the other two PVOs had under 200 MTs each in their warehouses when Mitch hit.

Within days, 1,400 MTs of commodities arrived via airlift and were divided equally among the three PVOs and the WFP for emergency distribution. All the rest of the emergency food assistance (95% of the total) was sea-freighted.

Emergency Title II food aid to Nicaragua in FY 1999 totaled 29,700 MTs with a value of \$19.74 million (Table 2). The PVOs received a total of 7,850 MTs of Title II commodities, an increase of 112% over their regular annual total. FFP/ER also allocated 21,850 MTs with a value of \$13.67 million to the WFP for its emergency programs.

The number of Title II beneficiaries jumped from about 20,000 before Mitch to over 600,000 during November-December 1998. During those two months, PCI distributed emergency rations, once, to about 250,000 people in seven departments (Matagalpa, Esteli, Leon, Chinandega, Carazo, Managua, and Jinotega). ADRA provided small rations to over 200,000 people for three weeks, distributing a total of 454 MTs with the help of the Catholic Church; and STC distributed 509 MTs to 165,500 people in Leon and Chinandega departments.

After these first-response distributions, the PVOs used the emergency Title II commodities to implement FFW programs, as early as January 1999 in most areas. The objective was to move away from direct distribution and to support local reconstruction efforts. The FFW activities were implemented in the PVOs' regular Title II program areas but with larger numbers of beneficiaries. Approximately 21,000 families participated in the PVOs' programs. The programs were termed "flexible FFW" partly due to the PVOs' lack of complementary funds for inputs and personnel. Participants were paid on the basis of working 50-80 hours per month rather than for completing technical structures, and the work was not done according to technical standards. The participants did some essential, but non-technical work, such as cleaning out houses and schools, sweeping the streets, and collecting trash.

May to September 1999 was designated as the transition phase for purposes of the Title II program. The PVOs' Title II commodities for this phase totaled 7,110 MTs with a value of \$3.22 million. "Regular FFW" with better controls reportedly began in May, although the PVOs' continued lack of funds for materials, such as cement, prevented the construction of durable structures such as retaining walls and bridges. STC had an average of 14,000 participants during May-July; their numbers declined from May onward as their distributions decreased due to delays in the call forwards and the lack of commodities available to borrow from the WFP. PCI distributed 870 MTs during the transition period.

The FFW transition programs actually continued into FY 2000 because of delays in the arrival of commodities, which plagued the program since the beginning of the emergency response. For example, only half of ADRA's authorized commodities arrived during the emergency period. As late as February 2000, PCI still had 6,000 FFW participants in their programs.

The reconstruction phase in Nicaragua has been designated as October 1999 through December 2001. It will focus on health through the MCH programs, as well as on agriculture, water and sanitation, and infrastructure. The three Title II PVOs planned to restart their regular programs in their original areas beginning in March-April 2000, and to continue smaller FFW programs with sound technical controls and increased work requirements of 100-120 hours per month. The FFW programs' overall objective will be to improve communities' economic and health status by implementing soil conservation measures (terraces, retaining walls, reforestation) and repairing infrastructure (sewers, roads, and bridges). The fact that the PVOs' programs had not been approved as of February 2000 affected their planning and operations. In February 2000, STC reported that they had funds from the Mission but neither the commodities nor the funds from FFP/DP to manage them.

#### **D. OTI Honduras**

Hurricane Mitch left an estimated 1.4 million Hondurans displaced from their homes. Of these, some 430,000 were at one time or another housed in emergency shelters such as churches, community centers, stadiums and schools. Those who did not enter shelters found refuge with families or were forced to live in their damaged homes and makeshift shacks.

Mitch damaged or destroyed an estimated 85,000 housing units. Of this total, middle class housing was very hard hit but was not included in plans for USAID assistance. USAID assistance focused on the poorest families, an estimated 5000. In Tegucigalpa where 85% of the land is considered ecologically vulnerable, a little over 2000 families took refuge in USAID-funded temporary shelter.

OTI's most significant contribution to Honduras was a transitional to permanent housing program for low income/poor Hondurans whose homes were severely damaged or destroyed by the hurricane. For the most part, these were homes built on old riverbeds, hillsides and other ecologically precarious areas that were washed away by flooding and/or mudslides.

OTI's program followed-on the successful shelter activities funded by OFDA in the first few months post Mitch. OFDA resources financed temporary shelter, emergency household survival kits, and two substantial grants to the International Office of Migration to build macro-shelters, including latrines and water systems. IOM administered a number of grants through NGOs to manage these shelters.

OTI resources picked up where OFDA left off in the housing sector to ensure that people in shelters were re-located into transitional, and eventually, permanent housing. This effort, the Temporary Housing Exit Program (*El programa de Salida de Albergues Temporales*) also known as the "Exit Strategy" or "Exit Program" began in March 1999 and is scheduled to end in August 2000. The purpose of the OTI program is to assist NGOs and the Tegucigalpa municipal government in restoring shelter needs for Mitch-affected households registered and living in Tegucigalpa's macro-shelters. The program is being implemented through an OTI grant of \$3.1 million to the IOM.

The Exit Program is intended to support NGO construction of housing for families who lost their homes in Tegucigalpa. Activities include:

- 1) identifying appropriate building lots and verifying land title;
- 2) analyzing the feasibility of water and sanitation hook-ups;
- 3) creating a data base of eligible beneficiaries, available land and interested implementing partners;
- 4) qualifying NGO partners;
- 5) implementing a voucher system for beneficiaries to select NGO project with whom they would work; and

- 6) providing technical assistance to implementing partners in putting together the paperwork for fulfilling technical, legal, environmental and administrative requirements.

In the initial stages of the program, IOM assisted the Tegucigalpa Mayor's Office in coordinating and implementing the exit process through a Technical Secretariat Unit (TSU). The Mayor's office set up a Bilateral Coordination Committee (CBC) to work directly with NGOs. IOM provided technical assistance to the TSU and the CBC in coordinating existing housing projects, designing missing elements, data management, contracting, and grant writing. In addition, IOM conducted a survey of the location and needs of Mitch victims in shelters.

To supplement its own expertise in construction and financing of permanent housing, IOM negotiated a complementary partnership with the Cooperative Housing Foundation (CHF), a long-time partner of USAID/Honduras. CHF's Honduras staff provided technical assistance to IOM on a housing voucher system, standards, housing policy, post-disaster construction and other housing-related areas until recently when their agreement with IOM ended.

The voucher system was designed to enhance beneficiary participation and choice in identifying housing solutions and to encourage departure from the macro-shelters. The voucher, worth \$600, provides beneficiaries with about 1/3 the cost of new housing construction. With this partial funding, beneficiaries must choose one of the NGO sub-grantees to obtain full funding for the cost of their homes. The system enables participation in decisions related to implementing partners, location of housing, and construction.

The program's portfolio of housing units includes 2062 families who were or still are in temporary shelters. In December 1999, the implementers projected that by March 2000, about 1/3 of the families would be in permanent housing while another 1/3 would have been relocated to their new building lot and in the process of construction. This will leave 1/3 of families between March and August 2000 to be relocated and to begin construction. As of Jan. 28, 2000, IOM had 15 projects with 13 NGOs underway for a total of 2022 housing units. The sub-grant range from \$4,800 to \$300,000 for a total of \$1.074 million in IOM sub-grants to NGOs. The larger grants were awarded to: Habitat for Humanity (\$240,000); Red Cross (\$300,000 and another grant for \$175,800); ADRA (\$101,600); and CARITAS (\$83,200).

To manage OTI resources and oversee the operations of the IOM and its sub-grantees, OTI provided a full-time technical advisor who became the Mission's Housing Officer up until his departure in February 2000. The OTI advisor worked within the Mission's Municipal Development and Democratic Initiatives Office (MDDI) and was responsible for all USAID-funded housing initiatives, including \$18.0 million for housing activities from Mitch supplemental funding.



### III. Preparedness Issues and Management of the Response

#### A. OFDA

Many respondents interviewed in the field and Washington conceded that no one was prepared for a disaster of the magnitude of Hurricane Mitch. Although hurricanes and temporary flooding are common in the region, this event was unmatched by any in recorded history. The overwhelming consensus, however, of the more than 130 people interviewed in the field, was that **OFDA and its implementing partners did an outstanding job**. Although some initial problems in coordination and communication frustrated a more efficient response, the end result of OFDA's contribution was to ensure that lives were saved and suffering alleviated.

Both Honduras and Nicaragua USAID Missions were favorably impressed with OFDA's role in the disaster. Surprisingly, before Mitch hit, very few people interviewed were knowledgeable about OFDA or what role it would play in response to the emergency. This lack of clarity on OFDA's role frustrated several experienced USAID Mission staff, because they felt that they were under-utilized and, therefore, not as productive as they feel they could have been if they had been better prepared. A major recommendation to BHR from USAID Mission staff is that **OFDA provide on-going training to Mission staff on disaster preparedness and response**. This would include periodic review and updating of Mission Disaster Response Plans, orientation on the role of OFDA, assessments, reporting and coordination mechanisms.

Although respondents commented favorably on OFDA's management of the disaster, the assessment identified several management issues that should be addressed in future planning. These issues applied to both Honduras and Nicaragua and are summarized below.

- 1) Mission Disaster Response Plans. Mechanisms, plans, and procedures were in place at the time of the hurricane. However, respondents conceded that their importance had not been fully appreciated by the Missions until after the emergency had hit. All Missions have a Disaster Response Plan, which spells out clearly defined roles of the Mission and their interface with the host-country emergency committee and Civil Defense (as well as the warden and radio systems designed to safeguard US Citizens). Most are 2–4 years old and had not been updated or reviewed prior to Mitch. The Mission Disaster Response Officer is responsible for the update and dissemination among Mission staff. Missions agreed that OFDA assistance in this area is very much needed.
- 2) OFDA Guidance Cables. OFDA guidance cables are thick documents issued periodically. OFDA had recently issued a Hurricane Season Guidance Cable. OFDA had also produced a 10 page Quick Reference Guide, which has been around since 1992. It spells out OFDA's mandate

and lists key things to consider when an emergency strikes. Not surprisingly, this is a case that clearly illustrates that thick documents are seldom read and their contents rarely digested. It is recommended that the Quick Reference Guide be distributed to everyone in the Missions and that review of key documents be part of on-going OFDA-assisted training at the Missions.

- 3) OFDA Host-Country Training. OFDA had provided disaster management training, mostly, at the municipal level, for 5,000 people in Honduras since 1987 and for 150 trainers of trainers in Nicaragua since 1993. The training plans and contents generally received high marks for quality among those who reviewed and/or participated in them. Although it was assumed that the response to Mitch from those at the municipal level was improved due to training, no one knew who was trained, what their skill sets were nor how to locate them when the emergency hit. Although host-country institutions claim that they do keep track of those trained, existing databases were not operational when Mitch hit.

The recommendation is to design, systematize, update and monitor databases for those who have received training, their skill sets and current information on their position and location. This data base could also serve to improve the level of preparedness by identifying gaps in training needs at the operational level (i.e. municipalities) based on geographic vulnerability and high-risk areas as well as at a host-country central coordination level. Performance indicators should be established and measured to evaluate the success of training programs.

A recent assessment of OFDA training suggests that there are two innate problems with training. The first is that host-country institutions are generally weak and unstable. Conservative estimates suggest a 30% turnover rate among those trained in a two-year period. Second, OFDA training is aimed at mid-level staff to empower them to bring about change in their organizations.

Empowerment for change quickly wanes. It is often met with resistance by superiors who more often than not are political appointees, with little or no management experience, and not likely to make maximum use of human resource capabilities. A possible way to address this problem would be to include training aimed at executives, supervisors, and decision-makers. The courses could be designed to sensitize them to supporting trained staff.

- 4) Host-Country Management. In both Honduras and Nicaragua, the institutions charged with disaster response, COPECO and Civil Defense, respectively, were quickly overwhelmed when faced with a disaster the scope and magnitude of Mitch. These institutions in both cases were largely made up of military and retired military personnel. In their place, individuals from the private sector emerged and took over the leadership reins.

In Honduras, a private businessman came forward and began to organize the national disaster response, first informally but within 72 hours, he was designated to lead the National Emergency Commission (CONE). Private sector infrastructure and management provided a command center with 30 phone lines, faxes, and computers. This "nerve center" provided data, information management, and coordination. However, it was not involved in the implementation of disaster operations.

No military were named to the management structure, leaving them to work on their own and in international teams. The military set up an independent Command and Operations Center (COC), and included foreign military representatives, with the exception of the United States. Private sector entrepreneurs assumed management responsibilities while operational responsibilities were for the most part in the hands of the military. COPECO was thus sidelined twice, first by CONE and then again by COC. After Mitch response requirements began to wind down, both CONE and COC disappeared leaving the discredited COPECO to deal with activities already in place. One year later, however, those interviewed strongly agree that COPECO greatly benefited from this experience and is now a much stronger institution. This is discussed in more detail in the impact section.

In Nicaragua, the situation was tinged by recent political history. The President of Nicaragua was criticized by many for not calling a state of emergency until early November, several days after the hurricane had struck. However, the reason for his reluctance was clear: under Nicaraguan law, a state of emergency initiates martial law, and freedom of the press as well as many citizen rights are suspended. The national and international repercussions of these actions were of grave concern for Nicaragua as were the political implications for empowerment of the military that is to an extent, dominated by members and sympathizers of the Sandinista party.

Nicaraguan Civil Defense was overwhelmed by Hurricane Mitch and was subsequently sidelined. In its place, the Vice-President was named to head the National Emergency Committee (CNE). This responsibility was given to the Vice President because of his reputation for honesty and good management practices. The GON was very concerned not to repeat the relief experience of the 1972 earthquake when vast amounts of assistance were misused or misappropriated. An Operations Center was set up at the airport, managed by the CNE and, operationally, by the military. Currently the Vice President's Office continues to spearhead emergency planning and preparedness while Nicaraguan Civil Defense remains sidelined in this respect.

In both Honduras and Nicaragua, when the emergency hit, parallel structures emerged that were headed by high-level management persons, trusted by the president and in positions to exercise influence and leadership. Many operations were under military control initially, while later, technical agencies took the lead in implementation. SANAA in Honduras, for example, effectively

took the lead within the water and sanitation collaborative group and began emergency operations (with OFDA resources) immediately. Before the disaster struck, prevention and mitigation were not a high priority.

One obvious recommendation is that OFDA and USAID Missions place more emphasis on strengthening host-country institutional capacities to manage disasters. They should be able to gather and process information from around the country by using improved early warning monitoring and alert systems. Training a network of disaster response personnel is not enough. The systems must be in place to utilize these personnel efficiently in times of emergency. To maintain these systems in good working order, higher priority must be given to their capacity to maintain adequate staffing and management.

The following summarizes issues specific to preparedness and management concerns in each country.

**Honduras.** Successful use of OFDA resources in Honduras was largely due to the following factors:

- 1) Although initially delayed by miscalculations on the course of the storm and the inaccessibility of Tegucigalpa, an experienced DART leader and team members were eventually sent to Honduras to take over OFDA operations. The team worked well with Mission management and was able to identify priority areas for support;
- 2) Early on, the Mission Director was designated to lead the relief effort which facilitated OFDA/USAID collaboration. In addition, the USAID Mission included several experienced officers with strong managerial capabilities and excellent organizational skills;
- 3) USAID/Honduras was fortunate to have strong PVOs with extensive in-country experience and community outreach networks that were already in place. These groups were signed on as grantees to implement a series of activities as early as the first week after the hurricane hit;
- 4) The Mission had long-standing programs for strengthening municipal governments; and thus had established working relationships with them. They played an active role in defining needs and coordinating the disaster response; and
- 5) The Mission and OFDA worked closely with effective inter-agency coordinating groups for various sectors, especially in the water and sanitation sector.

In the week prior to Mitch, the Mission was in contact with OFDA and aware of early warnings that the amount of rain that had fallen on northern Honduras was already showing signs of major damage. This prompted the Mission Director to set up an Operations Center in the Mission to track the path of the Hurricane and to begin collecting damage and needs assessment information. Communications with OFDA-LAC were initiated early and continued on a daily basis.

Early on the Mission Director requested and was given authority by the Ambassador to chair the Mission's disaster response. Within the USAID Mission several task forces were set up to deal with overall coordination and sector specific issues. The Director and the MDRO maintained contact with OFDA DART and OFDA Costa Rica. The MRDO is an experienced FSN, engineer by training, with 9 years as the Mission's disaster management officer. The MDRO, the water and sanitation advisor, and the Mission Director, as well as other key Mission staff, had experienced several prior disasters in Honduras and were familiar with the operating procedures. These officers agree, however, that no previous experience was adequate to prepare them for the scope and magnitude of Mitch.

During the first weekend of the storm, the Mission was drafting the first 7 agreements for OFDA-funded PVO grants. These were signed in a matter of days. The fact that the Mission could rely on experienced partners with a long-standing track record and extensive community networks in areas hit by the hurricane made a crucial difference in facilitating a fast start-up for disaster response activities.

OFDA/Costa Rica facilitated the signing of these agreements by providing simple two- page templates. This allowed the Mission and the grantees to move quickly. The second phase of OFDA funding, which began in late November, unfortunately, did not proceed as rapidly.

Accountability for the receipt and distribution of OFDA, other donor, and private sector donations was assured by placing both GOH and USAID auditors in each of regional distribution centers. The auditors worked side-by-side inventorying all commodities received since the beginning of the crisis in late October 1998 through the middle of February 1999. The USAID Mission deployed ten financial management staff around the country to assist Honduras' Controller General. The Mission's experienced FSNs were confident that most of the commodities were properly distributed from the regional warehouses. End use checking on resources distributed beyond the regional warehouses, however, was not undertaken.

There were several factors that hindered the disaster response. First, DART members were delayed in getting to Honduras due to miscalculations on the course of the storm and the inability to travel to Tegucigalpa and other hard hit areas for several days due to continued heavy rains. OFDA and Miami-Dade personnel were pre-positioned to respond but, unfortunately, Mitch did not follow its predicted path. Helicopters from Soto Cano in Honduras and experienced OFDA people were initially deployed to Guatemala and Belize where major damages did not occur. Part of the faulty prediction was attributed to a station monitor knocked out by the storm off Belize thus preventing the Hurricane Center from receiving essential data.

Second, there were questions raised about the appropriateness of the selection of some DART members in terms of their skills and experience. This question was raised with OFDA/Costa Rica's Regional Advisor who admits that OFDA was severely handicapped by a lack of skilled and experienced personnel available to respond to a storm of this magnitude in four countries.

Third, the second phase of the OFDA grants were not executed as rapidly as the first. The Mission expressed concern about OFDA's decisions to disengage early and hand-off activities to them before they were prepared to assume responsibility. In particular, they felt that the DART's decision to send most of the members home before late November, put them at a severe staffing disadvantage in terms of taking on the added responsibilities.

Finally, many of the Mission staff had several years of experience working in Honduras. The same holds true of the USAID-financed PVOs. This wealth of knowledge and network base helped management decision making. However, there was no apparent mechanism in place during the emergency to set priorities for relief efforts. In addition, it was difficult to line up the relief agencies (charged with distribution of commodities) with the military (charged with providing air transportation of the commodities) which at times frustrated pick-up and delivery of supplies.

OFDA's regional office in Costa Rica was instrumental in providing advice, in successfully getting assistance from high-level military authorities and was able to respond eventually by sending appropriate DART members to handle complexities. It took several weeks, however, for this coordinating mechanism to function effectively. **For the future, the Mission Disaster Response Plan should clearly identify roles of the military vis a vis other U.S. agencies in country and clarify how priorities for use of military aircraft will be set and by whom.**

**Nicaragua.** The organization of the Mission response in Nicaragua was very different from Honduras. The Ambassador took charge of the U.S. Mission's activities and designated the USAID Deputy Director as the liaison with the country team he chaired. USAID Mission staff were not directly involved in task forces or any coordinated efforts within the U.S. Mission on a continuous basis. Several staff were charged with specific liaison duties, but no task forces were organized within the Mission, as in Honduras, to make the best use of FSNs, PSCs and direct hire skills and to ensure that staff were fully informed and that activities were well coordinated.

OFDA arrived quickly with experienced people familiar with Nicaragua and able to hit the ground running. OFDA played a critical role in advising the Ambassador's country team, in serving as liaison with implementing partners (such as the Red Cross), in participating with other agencies in attending meetings of the Vice President's Disaster Response Committee, and in helping to set priorities for the disaster response.

In its role of advising the country team, OFDA was especially helpful in establishing guidelines for the use of helicopters in relief efforts. Like Honduras, Nicaragua was deluged by a steady stream of VIPs, U.S. politicians and others making demands on the Mission for visits to hurricane-affected sites. Early on, the Ambassador and OFDA made it clear that all available helicopter space was to be used for carrying relief supplies as a number one priority.

U.S. military relations with Nicaragua had been suspended when the Sandinistas took over in the 1980's and had yet to be re-established eight years after the Sandinistas left office. In spite of these obstacles, the U.S. military worked effectively with Nicaraguan counterparts and in coordination with OFDA and USAID, was able to implement a series of disaster response activities, which were considered highly successful by the respondents interviewed in Nicaragua. OFDA's familiarity with military operations was a critical factor in ensuring a smooth transition of activities from the military to host-government institutions. This successful experience has led to discussions between the U.S. and Nicaraguan militaries to establish permanent and on-going relations.

On the PVO side, the Mission's network played an important role in providing information on damages and immediate needs, as well as interfacing with municipal and local level officials in hurricane coordination. However, USAID-funded PVOs in Nicaragua did not have as extensive a community outreach network as PVOs in Honduras and did not have the benefit of as many years of management experience. Many of the Honduran PVOs/NGOs had participated in other, smaller disaster responses. This was not the case in Nicaragua. To compound the problem, several of the Mission's key PVO partners were undergoing management changes soon after the hurricane hit, leaving them without experienced leaders in charge. One of the Mission's strongest PVO partners had just assigned a new country director a few months before Mitch.

USAID/Nicaragua had worked with 30 or more U.S. PVOs in the recent past. However, with the exception of the Title II/child survival grantees, no coordinating mechanisms for working together and avoiding duplication were in place. The number of PVOs/NGOs operating in the same target area created some competition for resources and slowed the implementation process.

The two new OFDA grantees in the agriculture sector, Winrock International and Development Alternatives, Inc., relied heavily on World Relief, Inc. for coordination and advice given their long in-country experience. World Relief's farm store program provided field-based warehousing for emergency agricultural commodities. Their extensive promoter network proved invaluable in effective distribution of relief supplies to those most in need. The three OFDA grantees in the agriculture sector coordinated well, often with different roles, and at times working in the same area. OFDA agreements with the agricultural sector stated that relief commodities could be donated, sold or rented. Coordination among contractors went well in spite of some setbacks.

These OFDA grantees all report that quick action was hampered first, by having to get source/origin clauses waived by USAID to import supplies from other than U.S. sources and second, by having to handle bureaucratic entanglements by MAG-FOR to release commodities from customs. Although end-use checking was not part of project design, or mandatory, the PVOs took it upon themselves to build in mechanisms for appropriate targeting and distribution. Goods that were sold, such as coffee harvest equipment, acquired after the harvest in most cases, were retained in warehouses until the 1999 harvest to avoid strapping poor farmers with unnecessary financial burdens until the harvest, when they were in a better position to make loan payments.

Although there was no clear end-date attached to grant agreements, OFDA grantees make a solid case that quick action is not always appropriate. This is especially true in light of competition for beneficiary time as many of the disaster mitigation actions were occurring with the same timeframe and in the same communities.

Unlike Honduras, which used the initial OFDA funds to make a series of substantial grants to long-standing partners, USAID/Nicaragua chose to use these funds to make a series of smaller grants to a variety of requestors. About 21 small proposals to 16 implementing partners were funded (they averaged \$12,000, maximum grant of \$33,000). The processing of these grants involved a number of key Mission staff and placed a tremendous burden on them in terms of the staff time invested. **This experience highlights the need for OFDA guidance and possibly more direct OFDA management support to the Mission in the initial funding stage.**

On the host government side, initially the official disaster coordinating mechanism did not include the NGO community. This omission was rectified, however, and official overtures to bring NGOs into the coordinating forum were made. However, throughout the crisis, NGOs complained that they were not being kept informed and utilized as extensively as they could have been.

Host-government institutions received high marks for their management of relief activities. Although the CNE began operations for the first time with Hurricane Mitch, it was quick to establish itself at the airport, coordinated well with the military and international donors and established daily flight plans based on needs assessments. Although accountability for all in-coming donations was high and complete inventories were performed with very few irregularities, end-use checking was simply not feasible and not performed in most cases. Most of the general procedures for introducing emergency relief supplies were waived by host-country customs authorities, with the exception of the hybrid seeds for food crops. Hybrid seeds were held up in customs since they involved bureaucratic entanglements with the Ministry of Agriculture. This delayed the OFDA-funded seed distribution process for food crop plantings well into the *apante* or third planting season.



The Ministry of Health (MINSA) was primarily responsible for distribution of the \$850,000 OFDA-funded grant to PAHO. MINSA and PAHO worked well together and received high marks for distributing critical medical supplies. Within 90 days, supplies were purchased, introduced into the country, distributed to the *S/LA/S*, separated and sorted. At the municipal level, inventories were recounted and distributed to health centers. A PAHO tracking system compared numbers of medical visits and commodity disbursements against inventory stocks and concluded that population coverage was impressively high. Absence of major disease outbreaks is evidence of the effectiveness of measures taken by the public health system and supported by OFDA.

## **B. Food for Peace**

### **1) Preparedness Factors**

Two major factors facilitated BHR's preparedness to respond to Mitch: Title II commodities pre-positioned in the USA; and pre-existing Title II programs in Central America. The commodities pre-positioned in Lake Charles, Louisiana, expedited their arrival in Central America, as did the use of USG planes and helicopters for internal distribution. The fact that capable PVOs, such as CARE and CRS in Honduras, already had Title II programs operating in rural areas gave the Mission and BHR an advantage in setting up distribution networks. Good lines of communication between AA/BHR and FFP, and U.S. political interest in Central America, due to immigration issues, also were cited as positive factors in preparedness.

In the field, PVOs and host-government representatives interviewed about FFP preparedness/management issues, responded in terms of the local Missions that were their major USG contacts. These groups' universal response was that nobody was prepared for a disaster the magnitude of Mitch.

The Missions' preparedness/management advantages related to their in-country experience and their pre-existing Title II programs. The former was seen as particularly advantageous in Honduras, where USAID's long-term relationships with the GOH and the military and its long-term development programs gave the Mission solid networks for the response.

In terms of factors adversely affecting preparedness and management, FFP/Washington interview respondents cited lack of staff, funding, and information about the extent of the damage to food crops. The PVOs' management and carrying capacity limitations were additional factors.

## 2) Coordination and Communication Issues

FFP/W was pro-active in its response to Mitch. Both Missions noted that FFP/ER personnel made themselves available for consultation on a daily basis in the initial stages of the crisis. However, disagreements with FFP over the allocation of commodities, among our PVO cooperating sponsors and the WFP, hindered the emergency relief work. In addition, Mission personnel felt that FFP coordination/ consultation with them and other USG agencies, particularly USDA, could have been better.

Coordination issues with the Mission were particularly problematic in Nicaragua. The food management TDY person who came from FFP/Washington to Nicaragua was not from the ER Division and therefore, not sufficiently knowledgeable about timeframes for arrival of emergency commodities, documentation needs for processing the PVO grants and FFP/ER policies. The result was that the PVOs/NGOs were given misinformation about availability of FFP/ER and other BHR resources as direct grants to them. FFP/ER subsequently advised that only pre-existing Title II grantees would receive direct resources from FFP. Since the FFP TDY person had convened a meeting of some 30 PVOs/NGOs in Nicaragua and encouraged them to submit proposals to FFP, this turnabout caused ill will and delays in gearing up for community-based food distribution.

After FFP/ER had decided that only pre-existing Title II grantees would receive emergency commodities, the same FFP TDY person returned to Nicaragua and urged the PVOs/NGOs to work with WFP to obtain emergency commodities. However, WFP was only willing to provide about \$10 per metric ton to each PVO/NGO to cover all in-country transportation, storage and handling costs (ITSH). For the most part, the PVOs/NGOs could not cover their costs with that rate since in many areas of Nicaragua the ITSH costs approximated \$50-\$70 per metric ton. In addition, ill will increased among the PVO/NGO community, because they knew that WFP was to receive \$70 per metric ton of ITSH from USAID. The end result was that very few of the PVOs/NGOs assembled by the FFP TDY support person immediately after the crisis were able to participate in the Title II emergency program.

The Mission in Nicaragua also emphasized the lack of consultation by FFP prior to making decisions on allocations of commodities between the pre-existing PVO grantees and WFP. The lion's share of the commodities (75%) was allocated to WFP in spite of the Mission's explicit opposition to this proposal. FFP/Washington felt that the PVOs were not in a position to handle a larger emergency allocation of commodities because of internal PVO management problems and their limited carrying capacity. The FFP TDY person also informed the Mission that USAID had already pledged to provide a certain proportion (about 40%) of WFP's emergency appeal for Central America and that the commodities destined for Nicaragua were needed to satisfy USAID's

regional pledge. Much time and effort were wasted due to the lack of communication and miscommunications between FFP/ER and the field.

The issue of oversight of WFP programs by the Missions requires BHR clarification. The FFP TDY person advised that Missions had no oversight responsibilities for WFP programs in their respective countries. This contradicts previous cable guidance from BHR that notified Missions that they did indeed have oversight responsibilities. The assessment team recommends to FFP and BHR that clear and up-to-date guidance be issued on this matter.

The decision to rely on WFP instead of the PVOs was a continuing sore point between the Mission in Nicaragua and FFP. As time went on, it became clear that WFP had sufficient carrying capacity to distribute commodities to regional warehouses but beyond that point, did not have adequate management resources to program or monitor the programming of commodities to end-users. From four regional warehouses, WFP transferred all responsibility to a variety of partners, including municipalities, community groups and NGOs to "program" the commodities. As WFP's own recent evaluation concedes, most of the food aid ended up in direct distribution points as opposed to Food for Work or MCH programs.

This was in direct conflict with the GON's expressed policy that all emergency food aid be distributed in the context of programs or to vulnerable groups within health/nutrition programs. Direct distribution also competed with and detracted from the activities implemented by the Mission's PVOs which were required to design, implement, and monitor appropriate food for work activities in conjunction with food distribution.

On the internal BHR coordination side, Washington respondents noted that OFDA and FFP often do not coordinate their assessment resources, which may make them more costly and possibly redundant. This was not the case in Honduras where a FFP person joined the DART and worked very closely with DART/Mission activities there. In addition, field respondents were not aware of major coordination/communication problems within BHR—FFP and OFDA. Subsequent to Mitch, the BHR senior management urged FFP and OFDA to share responsibility for assessments and to work closer together. Some progress has been made in this area.

Another problem area identified by Washington was FFP coordination with USDA. Large quantities of USDA commodities were approved for each country and arrived over a prolonged period of time after the crisis. FFP/Washington thought that lack of reliable information from the field made coordination difficult. However, the senior agriculture officer in Nicaragua said that reliable information was available but that FFP/USDA did not take the field's technical advice into account.

Competition among the PVOs/NGOs for territory and funding was a major problem initially. In both countries, these problems were resolved gradually after the Missions set up coordinating mechanisms, involving WFP and the PVOs, to meet regularly, exchange information and avoid duplication of effort.

The PVO community and WFP respondents recognized the important coordinating role played by the Missions. PVOs consistently reported that they had excellent communication with their Title II program managers in the Missions. They reported that the Missions took a participatory approach to working with them and making decisions. They commented that their program managers were responsive, always available, and facilitated bureaucratic requirements.

The WFP in both Honduras and Nicaragua reported that the Missions held regular meetings that allowed the food-relief agencies to exchange information on commodities, standardize rations, work toward coordinating and standardizing their Title II relief programs, and resolve problems. This central role was essential because USAID and the WFP controlled 80% of all emergency food relief. Collaboration with the Missions and among the PVOs has continued well beyond the emergency.

### 3) Overall Management Issues

In both countries, PVO partners' major strength was their pre-existing Title II/child survival programs. Authorization to divert development resources to hurricane affected areas was granted without delay from FFP/Washington. This facilitated a quick start-up for the re-focused programs. PVOs suspended operations of the Title II programs to re-direct their management, community outreach, and commodity resources toward communities hardest hit by the hurricane. In some cases, these were areas where the PVOs were already working. In other cases, as in Honduras, CARE and CRS geared up to work in new communities with new partners.

Overall, respondents felt that PVOs were well positioned to respond to the emergency. This was particularly the case in Honduras. CARE/Honduras' institutional experience with food security and Title II programs and its well-trained staff, facilitated the shift to working in new sites with emergency programs. CRS/Honduras did very well also although they had not had a food aid program in Honduras for years. They brought in expertise from Peru to train local staff in logistics and were eventually able to complete an impressive number of FFW projects.

In Nicaragua, STC brought in several expatriate staff knowledgeable about emergency programs. They were one of the few PVOs/NGOs able to work out an arrangement for delivering WFP food in addition to direct USAID commodities. ADRA was well established in Nueva Segovia, an area hard hit by the hurricane, and had a strong network of volunteers in the communities in

that area. Likewise, PCI was well established in Jinotega and was able to draw on its community networks there.

Two of Nicaragua's three PVO partners experienced turnover in country directors immediately after the hurricane. Despite their number of years in country and experienced local staffs, the arrival of new directors put them both at a disadvantage in terms of smooth management transitions. The new leadership also raised doubts in FFP about their ability to handle substantially larger programs.

When Food for Work activities began in Nicaragua, the Mission noted that *competition among the PVOs/NGOs for beneficiary time was a major stumbling block*. In some areas, many different PVOs/NGOs were operating in different sectors: e.g. agriculture, roads, and community-based infrastructure projects. It took time to coordinate the activities of the multitude of groups working at the local level.

### **C. OTI Honduras**

OTI offered to assist USAID/Honduras in a number of areas in the immediate aftermath of the hurricane. An OTI person was sent with the OFDA DART and several other OTI TDYers followed in the first few months after Mitch to help the Mission assess the damages and identify potential areas of support. An OTI consultant on employment generation was sent to assess these possibilities in-depth and wrote a report that led to the design of a large rural road and bridge rehabilitation program funded by the Mission with supplemental funds.

OTI/Washington staff and consultants worked with the Mission to tackle the area of accountability and the creation of an independent Inspector General. *This particular approach was not pursued by the Mission in the immediate aftermath of the hurricane, but other measures to ensure accountability of USAID donations as well as other public and private sector resources, were implemented successfully in the disaster relief period.* {N.B. The accountability area has since been addressed as a multi-donor effort. The Mission and the Inter-American Development Bank have just initiated a new activity that will support the creation of an independent auditing capability.}

OTI's willingness to participate in hurricane transition activities in Honduras and to work closely with the Mission drew a round of praise from senior management and office directors interviewed on this subject. Both the Mission and OTI/Washington interview respondents commented, however, on the initial coordination/communication problems with OTI/TDYers and a few of the Mission staff. These problems were largely overcome once the Mission and

OTI agreed on a program and once OTI had placed a long-term advisor in the Mission.

On the question of preparedness, the expertise for implementing and managing shelter activities was not widespread in Honduras. OFDA was instrumental in quickly identifying a grantee, IOM, which drew on appropriate technical and management resources from a recent, prior experience in Guatemala. IOM recruited and brought professional staff on board quickly. The Mission's long-standing relationship with the Cooperative Housing Foundation provided much needed technical inputs in managing IOM's grants and worked to everyone's advantage. IOM believes that the NGOs selected to participate in the program were prepared. Although the technical expertise in housing was lacking, the NGOs selected as partners were familiar with the communities, knew how to verify losses claimed by the victims, and developed good working relationships with IOM, the municipality, and beneficiaries.

On the question of timeliness of the response, all parties agree that activities got underway relatively quickly and that OTI's major grantee, IOM, has worked rapidly and expeditiously to transition the shelter program from the initial OFDA relief grant to the OTI-funded exit program. The timeframe for moving people from the macro-shelters to permanent housing, however, was underestimated and has had to be extended to August 2000 from March 2000. Considering the obstacles to be overcome in purchasing land with clear title, negotiating and training NGOs to implement their various projects, and fulfilling the cumbersome paperwork requirements, IOM and its grantees have done an impressive job within a relatively short period of time.

However, as mentioned above, by March 2000, two-thirds of the families were still in transition to permanent housing which leaves a lot to accomplish in the final four months of the project. It is imperative that the Mission bring on board a US PSC Housing Manager as soon as possible to replace the OTI Advisor who departed in February. The Mission, apparently, counted on having the OTI Advisor in place until the end of the exit program.

On the question of appropriateness with regard to the housing program, there continues to be discussion among some OTI/Washington staff. At the time that the project was being designed, an OTI TDYer wrote:

"On humanitarian, development, and political grounds there is a vital need for a project to facilitate rapid resolution of the permanent housing problem for flood victims in the macro-shelters. Right now, amongst the donor community, USAID would appear to be the only international agency with the ability to react in a timely fashion to this need. Other resources, domestic or foreign, are not in place to respond. There is one other important reason for USAID/OTI to take on this task. It is in the U.S. national interest. For better or worse, the Government of the United States, through USAID, is now saddled by agreement with the responsibility for management of the Macro-Shelter activity."

[Concept Paper and Preliminary Project Description, Exit Program for Macro-Shelters, USAID/OTI, 2/7/99]

In the last sentence, the author is referring to USAID/OFDA funding of the macro-shelters and the need to devise a strategy to ensure that the macro-shelters do not become permanent housing solutions. Key Mission staff echoed these sentiments and emphasized the importance of this opportunity in providing some of the poorest families in Tegucigalpa a chance for a better life. OTI resources built on a successful relief activity and enabled the transition from macro-shelter communities into a more stable, healthy environment.

The team was able to visit four of the NGO project sites and talk to the staff as well as beneficiaries. Although all parties admit that it has taken longer and the process has been more complex than anticipated, the great majority of persons interviewed were extremely positive about the experience.

OTI, OFDA and the Mission should receive high marks for management of this program. OTI and the Mission recognized that OFDA resources would not go far enough to bring the housing problem to closure for these families. The Mission considered OTI's resources critical to making this transition and demonstrated commitment to it by investing another \$18 million when resources from the Mitch supplemental were made available. In so doing, OTI's \$3.1 million leveraged six times that amount of resources and came at exactly the right time to avoid a delay in the program. The OTI Advisor was put in charge of both OTI and Mission-funded activities and has been an integral part of the USAID-funded recovery program. This experience is a model for how BHR resources can be used to respond quickly, provide relief, and serve as the transition to jumpstart longer term development activities managed by the Mission.

## **IV. Impact of the Response**

### **A. OFDA**

OFDA's contribution to post-Mitch relief activities had far-reaching implications in both Honduras and Nicaragua. The impact of the search and rescue (SAR) response and immediate distribution of essential commodities (including chlorine, water bladders, water filtration equipment, and plastic sheeting for temporary shelter) was to save lives and alleviate suffering. It is difficult to estimate how many people were saved from direct OFDA resource flows. In Honduras, the Mission estimates that U.S. military aircraft, as well as other SAR services coordinated and/or financed by OFDA, were responsible for saving thousands of people.

In the region and in Honduras and Nicaragua, in particular, no major disease outbreaks occurred. This is a tremendous success story for which OFDA can take its fair share of the credit. OFDA was quick to identify water and sanitation as a principal intervention. In Tegucigalpa, OFDA resources and Mission/counterpart technical and management expertise can take full credit for restoring water to three-quarters of the city within a matter of weeks. This had enormous public health implications for this large urban population. Other donors, host-government counterparts and other implementing partners all recognize the important role that OFDA resources played in this regard.

OFDA grants to PAHO in Nicaragua ensured that the Ministry of Health (MINSA) prioritized the list of essential drugs and other medical supplies and strengthened the stocks of preventive and curative medicines. This was also an opportunity for USAID to coordinate with NGO/PVO partners, *S/LA/IS* (department health authorities), and MINSA to get medical supplies to areas most in need.

In Honduras OFDA's substantial investment in temporary housing and Macro-shelters has and will have an enormous impact on the lives of some 30,000 people. Macro-shelters were built to house people whose makeshift shacks for the most part, were washed away. Most of the people housed in shelters were women and children, some of the most marginal groups economically and most vulnerable to poor health and sanitation conditions. OTI took over the job of ensuring permanent housing for these families and has been very successful so far although the project is still underway. Over the longer term, it would be interesting to follow-up with these families in the next few years to see how their lives have changed as a result of the temporary-transitional-permanent housing program financed by OFDA and OTI. The team's assessment of OTI's "Exit Program" for the macro-shelters (see OTI impact section) showed that this is a tremendous opportunity for the beneficiaries to step up the economic ladder and provide a safer and healthier life for their families.



The civil society impact of the shelter and other OFDA-related activities should also be mentioned. The large number of urban poor left homeless by the hurricane could have provided fertile territory for civil turmoil. Providing shelter and satisfying essential needs for water, food and sanitation avoided what could have been another major disaster for Honduras public officials to address.

In Nicaragua the OFDA-financed seed program is a success story for which OFDA and the Mission should be credited. Hybrid varieties of seeds were introduced to farmers to replace seeds lost during the hurricane. The result was a 50-100% increase in yield for the first post-Mitch harvest. Experts in the field note that this process would normally take four years in Nicaragua. Farmers were traditionally resistant to planting with anything but seed reserves from the previous harvest. This activity has created a group of 200 seed-producing, small farmers and the result is that the national market for hybrid maize has more than doubled in one year.

**Institutional Impacts.** In terms of institutional impacts, we also have a number of noteworthy success stories. In Honduras, the most striking institutional change has been within COPECO, the disaster response agency. As discussed earlier, COPECO's institutional weaknesses had all but sidelined it as a player in the initial emergency response. One year later, however, COPECO has become a much stronger institution. The GOH has increased its annual budget 14 fold (to about US\$ 2.0 million) and they now are fully staffed with trained personnel at the central office and adequate communications equipment. They have also drafted an institutional plan for national disaster response and vulnerability reduction. COPECO still has a long way to go but all those interviewed in several different GOH agencies believe that COPECO is well on its way to becoming an effective disaster prevention, mitigation, and response agency. OFDA can take some of the credit for COPECO's comeback. Technical assistance, training, and commodity resources from OFDA are still very important to maintaining capacity at COPECO.

In Nicaragua, the VicePresident's office now has a full-time staff for prevention and mitigation. Legislation has been introduced that will give statutory authority to this entity and lay out the policy and guidelines for future response. OFDA's role in working with the VicePresident's office was important post-Mitch and will continue to be important if this entity is to build sufficient capacity for management of disasters.

Finally, on the impact side, OFDA's long-standing relationships with host-country institutions and OFDA's effective field role during Mitch provide a window of opportunity for OFDA/ USAID to support disaster preparedness. Maintaining this capacity is dependent upon keeping the issues of mitigation and prevention on the policy agenda as well as maintaining the expertise to respond.. As time goes by, awareness of the importance of mitigation and

preparedness wanes. OFDA has played an important role in keeping the issues on the table and should continue to do so in the foreseeable future.

## **B. Food for Peace**

Data that quantify the impact of the Title II programs in Nicaragua and Honduras do not exist, but reports from the PVOs and the FFW participants show what was accomplished and how much people appreciated USAID assistance in rebuilding their lives.

**Honduras.** A study of the nutritional impact of CARE's and CRS's emergency food-aid programs was done with data collected from July 1998 to June 1999. A sample survey of children less than five years of age in ten municipalities was carried out to determine post-Mitch nutritional status. The study concluded that the PVOs' programs had a positive impact on the population, particularly on under-fives, in whom malnutrition (measured by weight for age) decreased by 3.9% (Lizardo 1999). There was a decrease in malnutrition in seven of the ten municipalities, a decrease in diarrhea rates in six of those seven, and a decrease in diarrhea rates in the municipalities as a group.

At the community level, there was "a noticeable decrease in malnutrition" in 19 communities (68%) and "a slight deterioration in the nutritional situation" in the other nine (32%) (Lizardo 1999). The latter was associated with a "significant increase" in intestinal infections and diarrhea. Overall, however, the diarrhea rates were lower in mid-1999 than they had been in mid-1998.

**Data from 28 health centers in the communities indicated that children's' overall malnutrition (weight for age) rates had dropped from 22% in the second half of 1998 to 13% in the first half of 1999.** The study notes, however, that the increased availability of food from the emergency food programs resulted in significantly higher consumption levels and that, malnutrition rates would likely return to pre-Mitch levels when the food programs ended.

In Honduras, participants in a CRS FFW housing project were interviewed. Forty-three farm families whose houses were destroyed in the hurricane had almost completed new houses on a piece of land donated by the municipality. Pre-Mitch their houses were constructed of adobe walls, dirt floors, tile roofs, outside kitchens and latrines. Post-Mitch, the new houses have cement-block walls, cement floors, zinc-sheet roofs, electricity, running water, and indoor bathrooms.

Participants invested a year of their labor in FFW, first to clear and rebuild local roads and bridges and then to build houses. Women as well as men learned to run the cement mixer, make cement blocks, make cement floors, and do masonry. People said that the FFW was very important: it had enabled them to

work on their houses rather than migrating to seek work to support their families. They still needed to work to earn cash to buy some things, but most of their food needs were met through FFW activities. In addition to learning masonry--a useful skill for both sexes, they had learned to organize themselves and work well together, with some counseling from CRS.

**Nicaragua.** The consensus among PVOs in Nicaragua was that emergency food-relief had a positive impact on health and nutritional status. FFW activities rehabilitated water and sewer systems; built latrines and wells; and contributed to food security by clearing roads that provided access to health care, markets, and employment. Better sanitation and water systems, constructed through FFW, contributed to improved health status and household/community gardens reduced dependency on food aid. **The pre- and post-Mitch anthropometric measurements from ADRA indicate that children's nutritional status (measured by weight for age) was somewhat better in March 1999 than in September 1998.** The proportion of children of "normal" status increased by 7%, and the proportion of those "at risk" decreased by 6%. These changes may not be significant and cannot be attributed directly to the Title II programs, but they do suggest that in northern Nicaragua, children's nutritional status did not decline in the aftermath of the hurricane.

Based on an early 1999 survey of 10,500 households in 13 departments in Nicaragua, Title II emergency relief and FFW programs were oriented toward hurricane victims' greatest needs. People reported that their most important losses were their crops (46% of respondents) and housing (23%). **Community leaders reported that the most useful aid in the first few days after the hurricane was food (73%).** Later, food was still the most useful aid (35%), then roads and bridges, construction materials and housing, and the construction of latrines.

Four communities working with STC and five communities working with PCI were interviewed about FFW and its impacts for this assessment. **They consistently reported that FFW had helped improve their children's health, and helped them move from cleaning up activities to re-building and improving their communities.** Some people recommended that FFW start even sooner than it did in their communities, because otherwise people are confused and disorganized and focus on their trauma rather than the rebuilding that is necessary. Often the majority of FFW participants are women who report that they work as hard as men and have learned some important, new skills.

**Institutional Impacts.** The relief activities had a strong effect at the local level in Honduras. Working with the PVOs and numerous international agencies awakened the municipalities to the potential resources available for their development and, perhaps more important, their government's obligation for transparency and responsibility. At the community level, people created

emergency committees to manage food aid and rehabilitation activities and PVOs worked through and assisted these grassroots organizations. One PVO reported that these organizations have become a permanent fixture for local decision-making of all types. They served as a vehicle for increased participation in the emergency response and later in development activities, to balance the influence of political and other special interests.

### **C. OTI/Honduras Program**

The strong consensus from interviews of Mission personnel was that, had it not been for OTI resources, there would have been a much longer funding gap. The 2000 families in the Tegucigalpa macro-shelters were from the lowest end of the low-income group. We have seen in other countries the consequences of relocating people into shelters, each housing several hundred families, in close proximity to people hitherto unknown to them. Although the shelters were well built and provided basic necessities, they were deliberately designed to be austere so that only the poorest, with no alternatives, would be inclined to stay. Having lost their homes and many of their possessions, living under these conditions can be very stressful and can easily lead to social upheaval and violence.

The availability of resources to assist these people in defining a future, more permanent housing solution, prevented major turmoil that could have occurred among the macro-shelter populations. The project design was intended to maximize beneficiary participation in the decision-making and to mobilize people to achieve a common goal. Each NGO project required a certain counterpart contribution (some more so than others) both in terms of labor, in-kind resources, and financial commitment to repay the cost of new housing construction. Participation in the construction, both by men and women, enabled people to be trained in very useful construction skills in a very hands-on approach. As mentioned previously, there was some frustration among beneficiaries we interviewed, but in general, people were very positive about the program and enthusiastic about the future completion of their homes.

Without exception, the newly constructed houses were much better than the beneficiaries' previous housing. Many of them lived in makeshift shacks along the riverbanks, thrown together with whatever materials those more fortunate had discarded. Clean water needed to be transported, often from far away; electricity and sanitation facilities were not widespread.

New houses are constructed of cement block and zinc roofs. All houses include a core sanitary unit, a separate latrine, running water and electricity. All sites undergo an environmental review with specific focus on avoiding low lying areas vulnerable to landslides and/or flooding. In one site, houses were being

constructed on a steep incline, but retaining walls were included in the design of the house to cut down on water run-off and to reduce the danger of landslides.

Although this program was exempted from USAID environmental procedures, USAID/IOM established strict environmental guidelines for all NGO housing activities. The activities were required to fulfill a number of requirements to minimize damage to the environment as the result of housing construction. No reconstruction was allowed in areas labeled high risk by the municipality. Although the hurricane itself was a wake up call and got people's attention, the concern for prevention is still very high among government officials, both central and local. The housing program contributed to the heightened awareness by highlighting environmental issues and devising strategies to take them into account. Most agree that the challenge now for Honduras is to maintain the level of awareness of and commitment to safe environmental practices.

Most of the NGOs (3 of the 4 we visited) ensure that beneficiaries have a source of income to keep up with payments on their new houses. In one case, we were told that the housing loan payment was about 25% of monthly income, or about \$30/month with repayment planned for 15 years. In one of the project sites about 45 minutes from Tegucigalpa, the new housing construction was located next to a factory where many of the newly relocated people were employed. In another site, nearer Tegucigalpa several NGOs were collaborating to build houses on adjoining sites near a factory that was employing many of the new homeowners. This is a critical consideration in relocating people whose previous income depended on street commerce in the more heavily populated city.

There is no doubt, therefore, that the program is having and will continue to have a very favorable impact on the beneficiaries for years to come. Most of the people living in the shelters are women and children, the most vulnerable groups of society in terms of poor health status and lack of economic prospects. The project provides for a major lifestyle change for these people, an opportunity to participate more fully in the modern economy, to participate in democratic practices and to provide a healthier, more sanitary living environment for their families. It would be extremely interesting to do a follow-up study on a group of these beneficiaries within the next five years to see how successful they were in making the transition from marginal urban slum dwellers to income earning, home owners.

**Institutional Impact.** On the organizational side, there is also no doubt that the project has had a beneficial impact on building technical and management skills among the NGOs and on coordination among the NGOs as a group. They are now important players in the reconstruction and recognized as such by the municipality and local government officials. Some of the grantees will continue to need support beyond the life of the project, but for the most part, IOM and the

Mission expects them to meet their goals and be able to carry on after USAID support ends.

The work that IOM carried out in surveying housing needs, creating a census, and putting together a database of available land for acquisition, has impact far beyond the project. The issue for the Government of Honduras is where and how to transfer the technical and management skills that IOM has provided to NGOs and local government officials. On a national scale, the issue of government policy for low-income housing has yet to be determined. The Mission will be grappling with these issues, along with implementing partners, throughout the next two years of the supplemental housing program.

## **V. Summary Recommendations & Lessons Learned**

### **A. USAID Humanitarian Response**

The assessment team identified several issues affecting USAID's overall humanitarian response. These are summarized below.

- 1) USAID Missions expressed the need for increased management assistance from Washington within all three programs. They neither felt prepared nor that they had sufficient resources to manage OFDA-, FFP- and OTI- funded activities when they were handed-off to them. Mission staff in general expected more assistance for a longer period of time.

*Recommendation:* BHR needs to clarify the role of each program and the extent to which assistance will be available up front. This should be part of an on-going training program for field personnel (Mission, PVO/NGO) - see recommendation under OFDA below.

- 2) Without doubt, all three programs responded with critically needed resources at a time when no other USAID resources were readily available. The Missions expressed the need, however, for USAID policy on the use of development assistance (DA) resources in an emergency. This is especially critical when supplemental funds are not approved for several months after the crisis has occurred, as was the case after Hurricane Mitch.

*Recommendation:* BHR should recommend to PPC that guidance be issued on the diversion of DA resources for responding to an emergency to supplement IDA resources in large-scale disasters like Hurricane Mitch.

- 3) The lack of clarity on lines of authority and respective roles of USG agencies in international disaster response was the subject of the recent paper, "Interagency Review of U.S. Government Civilian Humanitarian & Transition Programs". These issues must be clarified in Washington and in the field to ensure that we maximize the impact of USG resources.

*Recommendation:* That BHR senior management continues to work with the USAID/DoS Interagency Review Committee and senior Agency management on these issues.

- 4) Disaster plans must be given higher priority by USAID/Embassy personnel on the ground and be sufficiently detailed to assist rapid start-up of activities across a range of sectors. They should detail the role of key implementing partners. Finally, they should be reviewed and updated, if needed, periodically.

*Recommendation:* Through OFDA and FFP programs, BHR should ensure that Mission plans are adequate to provide a blueprint for immediate action in the event of a disaster.

## **B. OFDA**

Interview respondents overwhelmingly agreed that OFDA's contribution was timely and appropriate and filled a critical resource gap. Familiarity with the region and willingness to work with a wide variety of partners facilitated an effective response. Personnel and relief supplies arrived in country within days of the hurricane. This immediate response lent prestige and credibility to the USG's role and demonstrated a strong commitment to support the countries in the region. The following are areas that require attention in future programming.

- 1) Early Warning Systems. USGS had established stream flow gauges in Honduras, trained host government counterparts, and developed processes for early detection and public alert of flooding possibilities. However, human error and institutional weakness short-circuited the systems. Equipment was not monitored properly nor were processes for early warning implemented. In some cases equipment had not been maintained and failed to operate. Nicaragua had no systems in place at all.

*Recommendation:* These systems must be an integral part of disaster response training. OFDA should coordinate with its USG partners to ensure that they receive the priority they deserve and are adequately maintained by host country counterparts.

- 2) Vulnerability Mapping & Zoning. As mentioned earlier, most deaths were caused by mudslides burying communities built on steep hillside slopes or in low-lying areas as in the foothills of Las Casitas volcano in Nicaragua. New housing construction has specifically highlighted this problem and addressed the need for watershed management. Difficulties in obtaining legal title to land, however, and the unavailability of resources among marginal economic groups who live on these precarious sites present formidable obstacles to overcoming this problem.

*Recommendation:* To ensure appropriate monitoring and evacuation measures are taken in the event of another natural disaster, vulnerability mapping should be done in both countries and maintained by the host government institutions charged with disaster response. This is another area that OFDA and its USG partners should monitor when providing technical assistance in disaster mitigation, prevention, and response management.



- 3) Emergency Information DataBases. The need for a database of trained personnel in disaster response was discussed in some detail in the management section of this report. Investments in training by OFDA have been substantial over the years but systems to maintain skills and identify the whereabouts of personnel were not in place in either country. The lack of this information caused delays in responding and coordinating actions.

*Recommendation:* As a priority intervention, OFDA should earmark some of the Mitch supplemental funds to build a network of trained personnel in each country and ensure that systems are in place to maintain the network, to provide on-going training, and to follow-up on personnel and disaster response plans.

- 4) Logistics. In both countries airlift support was delayed or misguided when no one was able to produce the coordinates (latitude and longitude) for critical targets such as a Title II food warehouse in Honduras or small, remote communities not marked on standard maps in Nicaragua. OFDA's and the DOD's financial costs for aircraft time are extremely high as are the human costs of delays in locating victims. Detailed, automated mapping capability is available on CD-ROM (non-classified) for both Honduras and Nicaragua from NIMA.

*Recommendation:* OFDA should ensure that host-government institutions charged with disaster response as well as U.S. disaster response teams on the ground have access to the most up-to-date information in each of their respective countries.

- 5) Preparedness Training for USAID Mission Personnel. USAID Missions and PVOs took on a heavy management load both in terms of coordination and operations. The management burden was exacerbated by lack of information on costs eligible for OFDA reimbursement (e.g. transportation, training, some indirect costs were not eligible for reimbursement by OFDA even though these same costs were reimbursable under other USAID grants). The Missions were also surprised to find out that audit responsibilities and costs were to be absorbed by them for grants over \$300,000. This lack of information and unfamiliarity with OFDA policies and procedures caused delays in implementation. Mission/PVO staff felt that their abilities to respond to a disaster would be greatly enhanced by preparedness training coupled with increased hands-on management assistance from OFDA.

*Recommendation:* OFDA should provide for on-going training of USAID Mission personnel in preparedness and management of disaster response. It would be helpful to include PVO/NGO partners in this training since the implementing burden is often in their hands. Since Mission, PVO and, NGO personnel turnover frequently, training should be given annually to new

personnel and refresher courses provided to those who have already been trained.

- 6) Host Country Disaster Response Policy. When the emergency hit in both countries, parallel structures emerged to take the lead in disaster management and coordination. Prevention and mitigation of disasters were not high priority issues. When the disaster struck, the military in each country assumed direct responsibility for operations. The hurricane experience put disaster preparedness and mitigation at the forefront of policy debate in each country where measures have been taken to strengthen local institutions' capacity to respond.

*Recommendation:* In order to maintain heightened awareness and continued efforts to strengthen host-country institutions, OFDA and USAID Missions should maintain a continuous dialog on prevention/mitigation issues and ensure that all programming addresses these issues as well as disaster preparedness.

### **C. FFP**

Overall, FFP's emergency response immediately after the hurricane was timely and effective. Airlifted commodities arrived from pre-positioned warehouses within a week after the disaster. The Honduras DART included FFP expertise and the Mission benefited from a steady flow of FFP/ER support.

One year after the crisis, the coordinating mechanisms established by the USAID Missions are still functioning and relations among the PVOs have improved. More information is also being shared by WFP. USAID and the host governments were united in their efforts to impress on WFP the need to program commodities, instead of directly distributing food for months after the crisis as was the case for WFP programs in both countries. These efforts, though not completely successful, did pressure the WFP to make the transition earlier than it had originally planned.

According to beneficiaries, food was the relief commodity most valued in the immediate aftermath of the storm and later, within the context of FFW programs. Beneficiaries especially recognized the importance of FFW as a vehicle to re-build communities and livelihoods at a time when other resources were not readily available.

The following summarizes areas that require attention in future emergency food programming.

- 1) Appropriate TDY support from FFP/Washington in emergency food programming is essential. None of the Missions in the region have experienced personnel in emergency food programs and furthermore, the

Title II development programs in the field are understaffed. The Honduras Mission received immediate food aid support with the DART team and subsequent TDY support from FFP/ER. With strong PVOs on the ground in Honduras, the Title II emergency programs met with less delays. In Nicaragua, the delays were long and painful. TDY support from FFP/Washington was misinformed about FFP/ER policy, procedures, timeframes for arrival of commodities. Expectations were raised among the PVOs/NGOs who were later frustrated to learn that they would have to work through WFP and with inadequate funds for ITSH.

*Recommendation:* The Bureau must ensure that experienced FFP officers are available to manage the disaster response in Washington and the field. The use of IDA funds to deploy experienced FFP personnel to fill these critical management gaps should be explored as well as other ad hoc solutions for crisis situations. For the long term, FFP must have authority to adequately staff its programs in Washington and the field.

- 2) Lack of strong coordinating mechanisms for food aid policy within the host governments led to mixed signals to WFP, FFP, and USDA on the need for continued food assistance months after the crisis occurred.

*Recommendation:* The Bureau should provide support to the Missions to strengthen on-going coordinating mechanisms with the PVOs and WFP and to ensure continuity of participation by host-government counterparts.

- 3) PVOs/NGOs echoed a common theme throughout the interviews: positive outcomes in the food aid programs were the result of transparency and standardization of approaches. The Missions' coordinating mechanisms were particularly useful in this regard. Since most of the implementing partners were not experienced in emergency food programs, clear guidance on procedures and policies is absolutely essential. This was particularly relevant to the transition programs. At the time PVOs were putting together their TAPs (transition assistance proposals), the guidelines were unclear and the requirements were cumbersome. Also, the process of reviewing these proposals, according to the PVOs, was onerous.

*Recommendation:* FFP should draft clear guidelines for transition programs and streamline the review process. [N.B. FFP advised in June 2000 that guidelines had been drafted subsequent to the Mitch experience.]

- 4) PVOs expressed concern that they be trained and receive guidance on emergency food programs well in advance of the next disaster. The lack of experienced people on the ground caused delays and communications problems.

*Recommendation:* U.S. Mission Disaster Plans should provide details on emergency food programs and clarify roles and responsibilities of key

implementing partners. This training could be conducted in conjunction with training recommended in the above OFDA section.

- 5) Direct distribution programs should be discontinued as soon after the emergency as possible. WFP had limited monitoring and programming capacity on the ground to ensure that partners were distributing food in conjunction with FFW and/or MCH activities.

*Recommendation:* BHR should play a more active role in the implementation of WFP programs through the U.S. representative on the Executive Board. In particular, the Missions should be consulted more closely on programs in their respective countries and concerns should be routinely channeled from BHR to Rome. In addition, as discussed in section III of this paper, BHR should issue clear and up-to-date guidance on Mission oversight responsibilities for WFP programs in their respective countries.

- 6) In Nicaragua, FFW programs were initially strapped by lack of complementary funds to purchase material inputs. In Honduras, OFDA funds were used in conjunction with FFW but also could have benefited from resources earlier. Due to the several months' delay in approving supplemental funds for Mitch reconstruction, the Mission did not have sufficient resources available to fund FFW programs.

*Recommendation:* OFDA and FFP should work together to ensure that guidance on use of OFDA funds gives priority to maximizing the use of other USAID resources, in particular food commodities and FFW activities.

- 7) Since procurement of food commodities requires considerable paperwork and several months delay, pre-positioned commodities are absolutely essential to provide a timely and effective response.

*Recommendation:* FFP should explore options for increasing the availability of pre-positioned commodities for disaster response.

#### **D. OTI**

The OTI Exit Program in Honduras is a model for OFDA/OTI relief to transition programming. OTI resources followed on a successful OFDA-funded relief effort and filled a critical resource gap in a situation that could have become politically volatile. The program provides a ladder to higher socioeconomic status for an estimated 12,000 beneficiaries who had been living in unsafe housing and marginal economic conditions.

The following summarizes recommendations and lessons learned from this experience.

- 1) OTI played a critical transition role after a natural disaster. Some observers have questioned whether OTI interventions should be confined to complex emergencies in which political and civil society issues are at stake. This is an excellent example where civil turmoil was a potential threat to a smooth transition to reconstruction and where a relatively small investment prevented the threat from becoming a reality.

*Recommendation:* OTI should not limit future activities to complex emergencies.

- 2) The program's success hinged to a large degree on OTI's willingness to field a resident advisor. Without this person in country, it would have been difficult for the Mission to assume management responsibility and there is no doubt, that activities would have been delayed. Timeliness was an absolutely critical element in avoiding turmoil among the thousands of people left without homes.

*Recommendation:* OTI should continue to work collaboratively with Missions and OFDA in programming transition activities.

- 3) Although the "Exit Program" has required more time than originally anticipated to achieve its objectives, the participatory approach appears to have given beneficiaries a greater appreciation for the process and its outcome. This is not a "quick disbursing" activity but one well worth the time it takes to do it right.

*Recommendation:* OTI should allow adequate time for implementation and hand-off of activities to the Missions or other implementing agencies. The timeframe for OTI involvement should be adjusted, as appropriate.

- 4) With a longer timeframe, more effort should be focused on strengthening host -country capacity to implement low-income housing programs. This is an area that did not receive adequate attention by OTI in the Honduras experience.

*Recommendation:* The element of sustainability should be addressed in the design and implementation of all OTI programs.

**ANNEX I**  
**Scope of Work**

## MANAGEMENT ASSESSMENT OF BHR HURRICANE MITCH RELIEF ACTIVITIES

### SCOPE OF WORK

**Purpose:** To assess the quality and effectiveness of USAID's humanitarian response to hurricane affected areas in Central America in the aftermath of Hurricane Mitch.

**Background:** Over the past decade we have seen a dramatic proliferation of both man-made and natural disasters around the world, causing staggering devastation in large parts of the developing world. In 1998 an estimated 418 million people were affected by humanitarian crises, of which natural disasters accounted for 74 percent. El Nino and the Southern Oscillation (ENSO)-related disasters affected nearly every development sector and caused USAID priorities to shift in a number of countries.

ENSO -related hurricanes proved to be especially deadly and costly for Central America in 1998. Hurricane Mitch caused human, environmental and property damage on a scale never before experienced in the recorded history of the region. Honduras and Nicaragua were particularly hard hit but Guatemala and El Salvador also suffered significant economic and human losses.

The U.S. Government took the lead in the international relief effort and launched a large and very visible response. This was the most extensive relief operation hitherto undertaken by the USG. Within 48 hours of the disaster declarations, USAID, in collaboration with U.S. military forces, had begun airlifting basic necessities, chlorine, food, materials for temporary shelter and other commodities to communities cut off from supply routes.

As the President's Special Coordinator for International Disaster Assistance, USAID Administrator J. Brian Atwood coordinated government-wide efforts to provide relief and assistance to the region. Within USAID, OFDA, FFP/Emergency and the resident Missions worked closely to carry out the humanitarian assistance program.

**Scope:** Given the unprecedented level of USAID humanitarian assistance, this evaluation will document the effort in terms of speed, appropriateness and effect on the populations most severely affected in Honduras, Nicaragua, El Salvador and Guatemala. We will review the major actions undertaken by OFDA, FFP/Emergency and the resident Missions in the immediate aftermath of the disaster, and the longer term relief efforts in

the area of emergency Title II food. In this case, we will look at emergency food aid through FY 99, provided to cover food needs of populations until the next major harvest.

We will review activities in each of the four countries but with emphasis on Honduras and Nicaragua where damages were much more extensive than in the other two countries.

### **Analytical Tasks:**

#### **A. Description of Damages and Humanitarian Response**

- 1) What was the extent of human and property damage?
- 2) What were the major actions undertaken by OFDA, FFP/Emergency and the resident Missions? Who were the major recipients or implementing agencies of USAID resources? Which USAID-funded PVOs/NGOs played key roles in the relief effort? What was the role of USAID-funded international organizations, particularly, the Pan American Health Organization (PAHO) and the World Food Program (WFP)?
- 3) What was the role of the host government, international organizations and local NGOS?
- 4) What were the major relief activities of the U.S. military? In particular, how did OFDA, USAID PVOs/NGOs and the resident Missions work with SOUTHCOM?

#### **B. Assess the quality and effectiveness of USAID's relief response in terms of : OFDA's activities in each of the four countries and on a regional level; Food for Peace's emergency Title II response; and resident Missions' activities..**

1) Were USAID-funded activities timely and appropriate? What are the strengths and weaknesses of USAID-funded implementing agencies (PVOs/NGOs, I/Os and other partners) in carrying out relief efforts?

2) What was USAID's role vis a vis other donors and the host governments' relief efforts in terms of efficiency of response, magnitude of assistance, target population receiving USG assistance, and coordinating role

3) What was the impact of the relief effort in terms of health and nutrition status of the most severely affected populations?

4) In the context of agriculture sector damages, what impact, if any, did the immediate relief effort have on the longer-term prospects for agricultural recovery in the affected areas?

5) Food security assessments were conducted by USAID (the Missions with the aid of LAC Bureau and private consultants) and several partners in both



Nicaragua and Honduras. What was the impact of emergency food distribution on the food security of affected populations in these two countries? What are the expected consequences of prevention, preparedness and mitigation activities undertaken by OFDA and other donors in the region?

6) What was the effect of OFDA, FFP and USAID Mission efforts on fostering increased cooperation among relief implementing agencies?

7) What host country public and private sector institutions were strengthened as a result of experience gained in post Mitch relief activities?

C. Lessons learned from USAID's disaster assistance activities in response to Hurricane Mitch. Were some of these lessons applied during the recent (July-Sept. 1999) flooding in Central America?

**Recommended Approach:**

1. Review all documents, assessments and reports related to USAID's disaster response in the four countries.
2. Interview OFDA/Washington, regional OFDA personnel, FFP/Washington, Mission personnel.
3. Meet with PVO/NGO partners, major international organization partners and key host government officials active in relief activities in Honduras and Nicaragua.
4. Discuss coordination issues with BHR staff and regional Bureau personnel.
5. Review reports from SOUTHCOM, other donors, IOs and PVO/NGO partners on Hurricane Mitch relief activities.
6. Draft a report covering the items detailed in the above section on scope of work.
7. Discuss findings with BHR, LAC and PPC Bureau representatives.

## **ANNEX II**

### **Partial Bibliography**

## **Selected Bibliography of Hurricane Mitch Documents**

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## **ANNEX III**

### **Persons Interviewed**

## **THE TEAM MET WITH THE FOLLOWING PERSONS**

### **In USAID/Washington:**

1. Donald Boyd, LAC/CEN
2. Tim Lavelle, BHR/FFP
3. Jim Wright, BHR/FFP/ER
4. Tom Nicastro, LAC Bureau
5. Carol Dabbs, LAC/RSD/HPN
6. Annette Bongiovani, LAC/RSD/HPN
7. Peter Smith, BHR/OFDA
8. Neil Levine, LAC/CEN
9. Jeff Brokaw, LAC/RSD
10. Elizabeth Kvitashvili, BHR/OFDA
11. Jon Brause, BHR/FFP
12. Janet Vandervaart, BHR/FFP
13. David Hagen, BHR/FFP/ER
14. Bob Kramer, BHR/OTI
15. Tom Dolan, BHR/OFDA
16. Steve Caitlin, BHR/OFDA
17. David Gould, OTI Advisor, Honduras
18. Jim Thompson, formerly with BHR/FFP
19. Ray Lynch, LAC/RSD
20. Eileen Simoes, BHR/OFDA
21. Kerry Burnes, LAC/RSD/BBEG

### **Other Washington:**

22. Claude de Ville, Pan American Health Organization
23. Anne Lewandowski, IRG consultant to OFDA
24. Lisa Daughten, IRG consultant to OFDA
25. Kathy McNeil, senior OFDA person in Nicaragua
26. Michele Cecil, Instit. For Def. Analysis, evaluation of DOD efforts post Mitch

### **In Guatemala:**

27. Mary Ann Anderson, formerly HRD/ USAID/Honduras
28. Robert Kahn, Program Officer, USAID

## **In Honduras:**

29. Salvatore Pinzino, Food for Peace Advisor, USAID
30. Marta Larios, Food for Peace, USAID
31. Todd Amani, Program Officer, USAID
32. Marco Zavala, Controller's Office, USAID
33. Herbert Caudill, Water & Sanitation Advisor, USAID
34. Todd Sloan, Municipal Development and Democratic Initiatives Officer, USAID
35. Elena Brineman, Mission Director, USAID
36. Joseph Lombardo, Deputy Mission Director, USAID
37. Carlos Flores, Mission Disaster Response Coordinator, USAID
38. Lynn Vega, formerly Title II Mgr, USAID/Nicaragua
39. Roberta Cavitt, Program Office, USAID
40. Julie Leonard, OFDA Advisor, USAID
41. Carlos Solis, USAID
42. Duty Greene, USAID
43. Ray Waldron, Agriculture Officer, USAID
44. Jeff Phillips, USGS
45. Guillermo Alvarado, Minister of Agriculture
46. Miguel Angel Bonilla, Vice-Minister, Ministry of Agriculture
47. Lic. Jaime Salinas, Director of Planning, Ministry of Agriculture
48. Gilbert Yanis, World Food Program
49. Giuseppe Lubatti, World Food Program
50. Lisa Pacholek, Country Rep., Cooperative Housing Foundation (CHF)
51. Lourdes Retes, Program Manager, CHF
52. Omar Gonzalez Cotarelo, USDA/U.S. Embassy
53. Ing. Ramon Cardona, Dir. Of Employment Generation, FHIS
54. Marcelo Pisani, IOM
55. Miguel Angel Trinidad, IOM
56. Mike Morales, U.S. Military Group, Embassy
57. Ing. Arturo Corrales, Minister of SETCO (formerly with COPECO)
58. Adan Palacios, COPECO
59. Andres Agirreano, COPECO
60. Moises Starkman, Minister of FHIS
61. Hans Edstrand, Pequeños Hermanos, NGO
62. Xavier Rodriguez, Educacion por Radio
63. Phil Gelman, Title II activities, CARE
64. Adriana Hernandez, UNICEF
65. David Hull, Title II activities, Aldea Global
66. Ximena Ibanez, PNUD
67. Gino Lofredo, Program Coordinator for Title II activities, CRS
68. Douglas Ryan, CRS
69. Ing. Miguel Flores, CRS
70. Ing. Mariano Plannels, Save the Children
71. Isnaya, Nuila, Ministry of Health
72. Moises Sanchez, Ministry of Health

73. Ciro Ugarte, PAHO

**In Costa Rica:**

- 74. Paul Bell, OFDA, Costa Rica
- 75. Guy Lawson, OFDA, Costa Rica
- 76. Renee Carillo, OFDA, Costa Rica
- 77. John Taylor, OFDA, Costa Rica

**In Nicaragua:**

- 78. Leonel Arguello Yrigoyen, , Country Director, Project Concern International
- 79. Eduardo J. Marin Castillo, Dir. Of Regional Strategies, MAGFOR
- 80. Richard Choularton, Program Officer, WFP
- 81. Margarita Clark, Title II Manager, Save the Children/Leon
- 82. Lutful Gofur, Save the Children
- 83. Meylin Gutierrez Hegg, Director, External Cooperation, MAGFOR
- 84. Eddy Jerez, Advisor, Office of the President
- 85. Gordana Jerger, Country Director, WFP
- 86. Federico Lindblom, PPRO Coordinator, WFP
- 87. Roberto Bendana McEwan, Dir. General of Agro-Livestock and Forestry, MAGFOR
- 88. Luis Osorio, Dir. Gen. of Policy, Inst. Nic. De Tecnologia Agropecuaria, INTA
- 89. Danilo Montalvan, Ass't. Dir. Gen., INTA
- 90. Mario Ramon Quintana, Project Concern International
- 91. Lee Rosner, former Chief of Party for PVO Monitoring Unit, Dev. Assoc.
- 92. Anthony Stahl, Director, ADRA
- 93. Marilyn Zak, Mission Director, USAID
- 94. Mildred Obregon, Program Office, USAID
- 95. Paul Greenough, Program Office, USAID
- 96. Earl Lawrence, Health/Population Office, USAID
- 97. Luis Ubeda, Municipal Dev. Specialist, USAID
- 98. Margaret Harritt, Environment Officer, USAID
- 99. John Avila, Controller, USAID



## **Nicaragua (continued)**

- 100. Cliff Brown, Democracy Officer, USAID
- 101. Leonard Fagoth, Agriculture Office, USAID
- 102. Jeff Stern, Acting Mgr. Of Title II activities, USAID
- 103. Roger Garner, Dep. Director, USAID
- 104. Paul Crawford, Agriculture Office, USAID
- 105. Maria Alejandra Bosche, Health Advisor, USAID
- 106. Margaret Kromhout, Program Officer, USAID
- 107. Ray Baum, Agriculture Officer, USAID
- 108. Deborah McCarthy, Dep. Chief of Mission (DCM), Embassy
- 109. Lt. Col. Leslie Bryant, Air Force Attache, Embassy
- 110. Clay Deckert, former DAO operations coordinator in Nicaragua
- 111. Anthony Troche, Regional Cartographer, NIMA
- 112. Esperanza Bermudez de Morales, President, Nicaraguan Red Cross
- 113. Raul Durietz, Dir. Of Training, Nicaraguan Red Cross
- 114. Alejandro Morales, Dir. Of Rescue, Nicaraguan Red Cross
- 115. King Bash, Chief of Party, DAI/Promesa Seed Project
- 116. Eugene Miller, Chief of Party, Winrock Int'l.
- 117. Jose Diaz, Winrock Int'l.
- 118. Kevin Sanderson, Country Director, World Relief
- 119. Dr. Juan Jose Amador Velazquez, Dir. Gen of Env. Health and Epidem., MINSA
- 120. Dra. Maria Elena Berrios, PAHO
- 121. Lic. Maritza Ortiz Bejarono, PAHO
- 122. Geronimo Guisto, Office of the Vice-Presidency
- 123. Camilo Cardenas, Consultant to the Vice-Presidency
- 124. Dr. Julio Icaza, consultant to the Vice-Presidency

## **In Miami**

- 125. Lt. Col. John Sumner, restoration activities, Nicaragua
- 126. Col Andrew Frick, USMC Dep. Dir. For Operations
- 127. Lt. Col James Pabon, US Army Chief, Joint Mov't Ctr.
- 128. Ms. Yanir Hill, Southcom Directorate of Logistics
- 129. Retired Lt. Col. Carlos Perez, lead Southcom during emergency in Nicaragua
- 130. William Bertrand, Dir Payson Ctr., Tulane Univ., partnership with Southcom
- 131. Richard S. Olson, Int'l Hurricane Ctr., Florida Int'l Univ.

## **ANNEX IV**

### **Detailed Listing of OFDA Grants Honduras and Nicaragua**

## OFDA Support in Honduras

OFDA Partner	Type of Assistance	Targets/ Beneficiaries	OFDA Funding Level (US\$)
	OFDA provision and delivery of Emergency Relief Supplies: Plastic sheeting for shelter; Water storage bladders; Water jugs, and body bags.	Distributed in the field	519,973
DoD	Department of Defense (DoD) Search and rescue operations, over flight assessments, transport of critical relief supplies and construction materials.		4,000,000
COPECO	Permanent Commission for Contingencies (COPECO): Local purchase of emergency food and relief supplies (buckets and blankets) (Phase 1)		125,000
SANAA	National Water and Sewer Authority (SANAA): Repairs and construction to major water systems (Phases 1 and 2)	Capital city (Tegucigalpa) & 37 municipalities	1,000,000
FHIS	Honduran Social Investment Fund (FHIS): Construction / repair of water and sewage systems (sub-contracted through bidding process).	64 municipalities (640,000 people) 140 water systems 8 sewage systems in 8 secondary cities	1,000,000
FIDE	Investment and Export Development Foundation (FIDE). Local purchase of emergency relief supplies; Emergency health care; Supervision of garbage and debris removal, in areas of economic interest to the tourism industry. (Phase 1)	Bay Islands	50,000
CARE	Emergency food (not FFP) and relief supplies (Phase 1)	9 Depts / 63 communities 205,000 people	100,000
	Tools, materials and equipment for reconstruction activities in conjunction with the Food for Work Program (Phase 2)	1,000,000 people	2,133,000
CRS	Catholic Relief Services (CRS): Distribution of emergency medicine and critical relief supplies. (Phase 1)	7 Depts./43 communities	100,000
	Repair of housing, water systems (incl. latrines), bridge and road repairs; distribution of basic household items. (Phase 2)	4,000 homes repaired 54 water systems repaired 214 latrines 20,000 families received essential household supplies	1,120,000
Aldea Global	Main transportation and communication infrastructure; Emergency commodities; Critical medical care; Shelter; and, Water/sanitation. (Phase 1).	4 Depts. and 19 communities	100,000
	Secondary and tertiary transportation and communication infrastructure; Rural staffing, outreach and repair of health centers; Emergency planting; Housing; and, water systems, inc. latrines. (Phase 2)	169 km roads 17 Health Centers repaired 1,500 mz. corn and beans planted 391 homes repaired 245 homes constructed 240 village / municipal water systems repaired 450 latrines constructed	232,560

Table 2 - Continued

**OFDA Support in Honduras**

<b>OFDA Partner</b>	<b>Type of Assistance</b>	<b>Targets/ Beneficiaries</b>	<b>OFDA Funding Level (US\$)</b>
Save the Children	Emergency food (not FFP) and clothing; Health care outreach to families; Medical supplies to health facilities; Housing repairs/ construction; and, Water and sanitation. (Phase 1)	4 Depts. and 19 communities	100,000
	Housing construction; Water and sanitation; School repairs (Phase 2)	2,000 homes constructed 55 water systems repaired 1,100 latrines functioning 39 schools repaired	1,511,650
Project HOPE	Assistance to emergency shelters: Water and sanitation; Control of respiratory disease and diarrhea; Bedding for children, pregnant women and elderly; Stoves, tables and kitchen equipment. (Phase 1)	23 emergency shelters and 1 macro shelter in the greater Tegucigalpa area	100,000
World Relief	Local purchase and distribution of emergency food, clothing and medicine. (Phase 1)	6 Depts. and 14 communities  11,000 families	100,000
World Vision	Water system reconstruction and chlorine packet distribution; Health care outreach; local purchase and distribution of critical household supplies. (Phase 1)	4 Depts. / 10 communities 21 water systems repaired 31,000 chlorine packets distributed 20,000 health care visits (incl. psychological trauma) 2,500 families received critical household supplies	100,025
FHIA	Honduran Agricultural Research (FHIA), agriculture / food security (Seed production): Plant hybrid disease resistant plantain seed beds. (Phase 2)	5 Departments Enough seed produced to replant 1,000 hectares in 18 months (by July 2000), benefiting small farmers	144,000
Zamorano	Zamorano Agricultural School, agriculture / food security (Seed production): Plant high yield, pest-resistant red bean seed beds. Distributed through NGO network in time for the May planting season. (Phase 2)	65 hectares (plus 11 acres) planted	95,533
AMHON	Honduran Municipalities Association (AMHON): Reimbursement for emergency expenses; Mud and debris removal from drainage systems, streets and homes. (Phase 1)	20 hardest hit municipalities	699,923
CHF	Cooperative Housing Foundation (CHF): Temporary shelters and latrines	46 communities 1,740 temporary shelters for 10,250 people 610 latrines	499,885
PAHO	Pan American Health Organization (PAHO): Provision of health services; Prevention, surveillance and control of outbreaks; Medical supplies and repairs to health facilities (Phases 1 and 2)	Nation-wide 80 health centers repaired	1,010,000
IOM	International Office for Migration (OIM): Transitional macro-shelters and start-up kits provided to each family (Phase 2)	5,000 families 30,000 people	4,109,000
<b>TOTAL</b>			<b>18,950,549</b>

Table 3

## OFDA Support in Nicaragua

OFDA Partner	Type of Assistance	Targets/ Beneficiaries	OFDA Funding Level (US\$)
Fundación Alistar	Provision of food and agricultural tools in BOSAWAS	Approx. 40,000 people	200,000
World Relief, Corp.	Procurement / distribution of agricultural tools and equipment	2500 families  350 coffee depulpers barbed wire for fencing irrigation motors and supplies hand tools	500,000
Clarke Mosquito Control	Procurement / distribution of mosquito nets, treated with repellent	50,000 families	500,000
Winrock International	Procurement / distribution of tools, equipment and seeds through 13 PVOs and NGOs: CARE; TechnoServe; APENN; UPANIC; CRS; UNAG; UNICAFE; FUNDECI; PAGIJNO; CLUSA; AGRODESA; Hogar del Niño; ASOCAFEMAT.	4,000 small farmers: Tools: \$456,378.50 Seeds: \$ 84,444.61 68,000 imported seeds 4,900 machetes 4,008 pr. Rubber boots 500 rakes 3,800 shovels 41 small Garden tractors 1,194 wheel barrels 2,800 hammers saws, barbed wire	550,000
PAHO	Procurement of medicines and medical supplies Distribution by Ministry of Health (CIPS/MINSA)	8 Regions (SILAIS) 275,000 people x 6 months = 1,650,000 people	850,000 600,000
Development Alternatives Inc.	Implementation of an emergency bean seeds, distribution through International Federation of the Red Cross (IFRC).  Production program with small farmers.  Used new hybrid variety of seeds: High yield, plague resistant and of same germ plasm base as traditional varieties lost during the hurricane.	10,000 of most marginal farmers received: 25 lb. Seeds, enough to plant 1 mz maize and 1/2 mz. Beans 1 bag starter fertilizer 1 bag urea \$30.00 cash  200 small seed producing farmers received technical assistance	600,000
ENVASA	Manufacture and distribution of water filters	40,000 families in 20 most affected municipalities	400,000
CARE	Cash for Work: Tools for tertiary road rehabilitation	2,000 workers 65 km. of tertiary roads repaired	155,000
IFRC	International Federation of the Red Cross (IFRC) Temporary Housing by Dutch and French Red Cross, CARE, Ayuda en Acción, Popul-Na and Jubilee House	At least 550 transitional houses.	1,656,000

Table 3 - Continued

**OFDA Support in Nicaragua**

<b>OFDA Partner</b>	<b>Type of Assistance</b>	<b>Targets/ Beneficiaries</b>	<b>OFDA Funding Level (US\$)</b>
16 implementing partners	Rapid Response: Building materials, medicines, training materials, radio commercials, small hand tools, temporary shelter, latrines, wash basins, toothbrushes and toothpaste, mattresses, first aid equipment, fire-fighting equipment.	11 priority municipalities	245,000
USAID/NIC	Local purchases, distributed through the Red Cross	1,200 families Fuel, tools, chlorine, emergency supplies	161,900
USAID/NIC	Local purchases, distributed through the Social Action Secretariat (SAS)	Boots, blankets, raincoats, chlorine, water containers	13,100
Civil Defense	OFDA commercial airlift of supplies distributed through the Nicaraguan Civil Defense	15,500 5-gallon water containers 14,000 blankets 679 rolls plastic sheeting 3- 10,000 liter water tanks	419,300
DoD	Food, medicine and supply airlifts	825,000 lbs. of supplies airlifted	1,200,000
<b>Total</b>			<b>8,050,300</b>